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ORIGINAL COMMUNICATIONS.

ART. I. *Some Observations on the Principle of Utility, as governing the Application of Columns.* By E. TROTMAN, Esq.

So far is the science of architecture from being immutable and uninfluenced by the lapse of years or the fashions of the day, that we find it receiving, from time to time, new modifications, and yielding to new impulses of the prevailing taste. Not only do we observe the antique style of one period falling from maturity to corruption, as the seed from which spring fresh systems of high and widely spreading beauty; but we see also, in the cultivation of each style, almost every succeeding generation adopting some novelties of treatment, and rejecting, to a greater or less extent, the established rules of its predecessors. That such changes of opinion and practice should be frequent in the progress of those sciences which are affected by every newly discovered fact in mechanics or natural philosophy, we stand prepared to expect; being, in the pursuit of these subjects, restricted by the dicta of antiquity only so far as those dicta are identified with testimonies of our own experience. It is not, however, equally obvious, at the first glance, how architecture should afford opportunity for variations, not only so numerous in points of detail, but so important in principle, accustomed as we are to hear on all hands the appeal to the standards of antiquity as decisive upon excellence, and to have the consideration of precedent urged upon us at every turning, as if the whole system had been finally fixed and consolidated by the labours of our long-departed predecessors in art. Yet the admirer of Palladian specimens, and the imitator of Athenian, differing so widely as they do, plead equally the sanction of old authority; while the critic who would decide between them, actuated by the same respect for antiquity, probably cannot agree with either. These differences, however, cease to afford matter of surprise, when we observe the limitations that confine the view of each. The follower of Palladio, in his admiration of the picturesque, embraces a system which stops short of the

correctness derivable from a reference to the Grecian originals of classic architecture; while the exclusive admirer of those Grecian examples is too often chargeable with the much greater fault of assuming the applicability of the characteristics of the Athenian temple alike to all modern purposes and localities. To meet the deficiencies of both, therefore, it is obviously necessary to unite a comprehensive regard for the beauties of ancient art with an accurate discrimination as to their fitness to modern requirements; to consider the modes of decoration in constant connexion with the principles of utility. To do this, however, constitutes, frequently, one of the greatest difficulties to the thinking mind. The point at which the rule of utility ceases to apply, and the office of pure decoration begins, is by no means easily definable; there being, indeed, for our admission a kind of intermediate principle, that of utility of decoration, if we may so call it; or the conduciveness to the unity of decoration of such members as may be constructively superfluous. The very circumstance that architecture is a decorative science manifestly requires a concession to this middle principle; for it is evident that a strict application of utilitarian maxims to that science would at once divest it of all pretensions to ornamental effect. It, therefore, becomes a matter of very great importance for us to ascertain how far the utilitarian principle is entitled to implicit observance, before we may proceed to act upon the suggestions of decorative fitness, much less upon those of ornamental fancy. This enquiry is, indeed, worthy of much greater attention than our present limits will allow us to bestow upon it, lying, as it does, at the foundation of all significancy in composition. It is one also for which the greatly extended antiquarian researches of later years fitly prepare the way, by allowing us to trace back the advances of architectural science to its most remote development; and to observe, from a commanding point of view, the various modifications which it has undergone, in obedience to the requirements of climate, of national character, and of social habits. Indeed, the circumstances which thus render us conversant with all the varied architectural forms of antiquity the more imperatively require this investigation, since they will only afford the greater inducement to a blind and degrading imitation of those ancient remains, unless we accustom ourselves to submit our impressions to a process of reasoning whose ultimate appeal must be to the principle of utility.

In proceeding to examine some of the bearings of this principle, we consider it quite unnecessary to enlarge upon its general reference, as suggesting a correspondence between the character and the destination of a building, whether palace or prison, temple or warehouse: this expression of fitness is manifestly inseparable from an observance of the maxims of utility. It is to

the effect of these maxims upon the application of the detail of composition that we now confine our attention, and this more especially as affecting the employment of that most important feature of classical decoration, the column. This subject is evidently quite distinct from that which engaged our notice on a former occasion, when we endeavoured to show how far the elementary forms of architecture owed their origin to the principle of absolute fitness. Our business is now with the *application* of the column and entablature, and not with the circumstances of their origin, except so far as the latter may furnish deductions tending to establish our positions with respect to the former.

We remark, then, that the primary and most obvious office of the column is the support of a horizontal superstructure for the purposes of shelter. Hence its use in the portico and external peristyle of the Greek temple, and frequently also in its interior. None, therefore, will dispute the significancy and decorative fitness of the column where thus applied, in its first simplicity, to porticoes, colonnades, or interiors, as characteristic of utility and necessary support. In this simplicity of use we premise the employment of unbroken entablatures and regular intercolumniations. But are we to be restricted to this? Is there no significancy or propriety in the use of the column under combinations less primitive and rules less severe? In the internal introduction of arches and vaulting instead of the horizontal superstructure for shelter, are the column and entablature to be necessarily discarded? Certainly not, unless we would sacrifice almost all the beauties of Roman and Italian composition to that ill-supported hypothesis, popularly adopted from Vitruvius, which makes the column and entablature to be mere representations in stone of the props and roof of the primitive wooden hut. For, unimportant as the question of the origin of these members may at first sight appear to be, it is well worthy of our careful notice that the admission of this hypothesis of Vitruvius is fatal to the consistency of expression, in detail, of almost every ancient or modern work of importance. Even the chaste structures of Athens will not be found faultless on this supposition; for the scheme of timber construction can never justify the conjunctive use of a complete internal and external entablature, as in the case of the peristyle and cell of the Parthenon, and many other edifices. On such a supposition our imagination must be constantly haunted with the idea of the repetition of roofs on the inside of buildings, and even about their doors and windows. But reject this notion, and consider the entablature under its most obvious character, and that which we have formerly endeavoured to illustrate and establish, not as representing a wooden roof, but as being and representing

honestly a platform of stone, raised for any specific purpose, — primarily, indeed, for that of shelter, — and the whole difficulty thereupon disappears, supposed incongruities vanish, and significancy and fitness are, in many instances, recognised in the place of misapplication and confusion, as we shall have occasion to notice more largely hereafter. This point, then, being admitted, we shall be prepared to see that the use of columns and entablatures does not necessarily render a surmounting arch or vault inappropriate; that, for instance, two parallel lines of columns, with continuous entablatures, may fitly be united by a vaulted covering. But suppose, further, a somewhat similar arrangement to be that of the nave of a modern church, in which, however, the smallness of the regular intercolumniation is a matter of objection, on account of the obstruction caused by numerous columns; and instead, therefore, of continuous entablatures on each side, a succession of arches is made use of from column to column, surmounted by the general vaulted ceiling; at the same time, the decoration of columns or pilasters must be continued round the extremities, east and west, with a regular entablature. We then are under the necessity of employing over each column a square piece of isolated entablature, to preserve a correspondence of lines round the whole interior, a combination of which we find constant examples in the churches of Sir C. Wren, and subsequent architects. This particular arrangement is, by many persons, pronounced to be a great abuse; but with such an opinion we are not prepared to coincide. For the truth is, that the introduction of the arch and vault, in this and similar instances, entirely sets aside the importance of the entablature as the member of support, superseding it in efficiency for all large intercolumniations, and leaving to it only those smaller intervals which may be within the usually admitted limits. On the other hand, to avoid such a discontinuance of the entablature when arches are employed over columns, the only alternative would be to omit it altogether, and to let the arches spring immediately from the capitals. To this, however, there is the greatest ground of objection, inasmuch as the inseparable connexion of the column with its entablature is a point of fundamental importance to the preservation of the identity of classical architecture, to neglect which is to wander at once into those mazes that terminate in the Moorish or in the Norman style: not to notice further the naked and unsatisfactory appearance of a column so employed, as contrasted with the same member under every other application, in colonnades and porticoes; nor yet to insist on the fact, that one of the Roman orders, the Doric, is essentially incomplete without its entablature, the triglyph of which alone gives a denomination to the column. In saying thus much, we wish to

show that the supposition of the invariable importance of continuous entablature, which has been derived from the study of Greek works, is not of universal adaptation to that complex system in which the arch obtains so conspicuous a place; there being occasions, in internal arrangement, in which the arch, as the substitute for the entablature over large intercolumniations, greatly exceeds it in value and efficiency, and wherein the latter could not be carried out and applied to the same office without manifest inconsistency, and, indeed, false construction; occasions, therefore, in which the expression of utility requires a broken entablature as subservient to the arch. But, even in these cases, the object for which a continuous entablature would be desirable, viz., the connexion of horizontal lines, is not to be lost sight of; for, in the instance before supposed, of a row of columns and detached entablatures connected by arches, the whole ought to be surmounted by a larger cornice than that of the entablature, previously to its receiving the general vault, as instanced in the clere-stories of some of our churches. A groined ceiling, instead of the arches and vault, would be wanting in character; since this would preclude that connexion by means of a general surrounding cornice. Of course, the license for which we thus plead, in the occasional management of arches, applies principally to the composition of interiors: it cannot, in external design, be extended to the sanction of such an abuse as that of the interruption of a general entablature for the admission of an arch, where there is no superior cornice above to connect the whole, as exemplified in the flanks of the Mansion-House; while, on the other side, it may offer sufficient apology for the practice of using a subordinate order, with discontinued entablature, in such instances as those of Venetian windows, so common in the designs of the Palladian school.

Having so far noticed the twofold employment of columns for the purposes of shelter, on the one hand, by the support of continuous entablatures and horizontal coverings, and, on the other hand, by the support of arches and vaultings, to which the entablature then becomes subordinate; let us for a moment observe some inferior examples of such combinations for the same ostensible object. As one of these, we sometimes see a portico or colonnade made use of, not to protect and designate an entrance, but as a mode of decoration to windows: how far, it may be asked, on the principle of utility, is this justifiable? We reply, that, when such an appendage has sufficient projection and arrangement to render it really available as a place for walking in shelter, it is undoubtedly appropriate, having the uses of a veranda, combined with an architectural character which that class of erections can never possess. When, however, its projection is insufficient for this object, the columns

being placed, perhaps, as close as possible to the wall in which the openings occur, the only principle of utility upon which it can be admitted, is that of affording protection to the windows, in the same manner (though to a greater extent) as an ordinary window dressing is professedly made to do. It is only upon the same supposition, indeed, that we can recognise any practical fitness in the use of engaged semi and three-quarter columns. For it must be allowed that the employment of the column in this attached mode is greatly defective in point of significancy, countenanced as it is, nevertheless, not only by the frequent practice of all the greatest modern architects, but by examples from the purest periods of antiquity, as well Greek as Roman.

The application of columns to windows, and the frequent use by modern masters of engaged columns, are matters that often stand associated with another circumstance of practice which demands our notice; viz., the employment of orders upon orders. Nor is this practice to be met with that sweeping condemnation in which some critics delight, since there are many considerations that render it occasionally justifiable. It is true, indeed, that two orders, of which one is placed upon the other, are not in the abstract equally imposing with one order of their united heights; and that such an application as the former constitutes a departure from the example of the best (though not of all) Greek remains. But neither of these circumstances is a sufficient objection, since, in the first place, the column is not in composition to be considered alone, but in connexion with accompanying features, especially in reference to the apertures; and, in the second place, those apertures are with us subjects of much more importance, and deserving of more concession, than they were in the climate and temple architecture of Greece. If, then, in the decoration of a façade of several stories, we would preserve to the windows that prominence of character which the expression of utility imperatively demands, we must limit in proportion the size of the columns with which they are associated, never allowing the height of the latter to include more than two tiers of ordinary apertures, or one tier of such apertures as may be large enough to require a wide intercolumniation. If this limitation be exceeded, the window not only loses its proper character, but is deprived of its internal efficiency, on account of the extreme width of the intermediate piers required by larger columns. This restriction, then, in the height of an order so employed, will render it advisable, for the decoration of the supposed remaining stories, to introduce sometimes a basement, sometimes a second order, and sometimes both together, as in the Banqueting House at Whitehall, and the exterior of St. Paul's. Nor are the character and office of the column and entablature, if rightly considered, at variance with such an appli-

cation. On the Vitruvian hypothesis of their origin, this practice would, indeed, involve the absurdity of representing as many roofs as there are entablatures, or even cornices, in the height of a front; but, upon the supposition, which we have before advocated, that the entablature expresses simply a platform of stone, there is discerned a manifest significancy, rather than an abuse, in thus marking the division of stories by the use of successive orders. Of course, we do not plead for any such fantastic display as that of piling the five orders one upon another; we wish merely to show, in opposition to the hypercriticism of pseudo-Grecians, that the practice under notice, so frequently resorted to by the followers of the Italian school, is capable of justification; and, further, that those masters acted in the true spirit of art in thus modifying and applying the systems of antiquity to their own altered wants and circumstances.

But, besides the various employment of the column in such cases as those already adverted to, where the obtaining of shelter is the professed object, we have to enumerate some other purposes for which it may be used. Of such purposes, probably, the next in importance is that of the definition of boundary. Thus, wherever a screen or fence wall admits of perforation, we may consider a columnar screen capable of application in its stead, without any opposition from the principle of utility; a consideration which will extend to the decoration of gateways and park entrances. Closely connected with this subject is that of the embellishment of archways, upon the model of the triumphal arches at Rome. Here, too, we contend that the utilitarian principle may justify the employment of the column, though upon another and a third ground; viz., that of presenting support to essentially characteristic parts of the composition. As applied to a triumphal arch, the column would have no significancy as a means of obtaining shelter, or of defining boundary; it has, however, sufficient import and character as a means of support to so essential a feature as statuary. Hence, in the arch of Constantine, we recognise a reason, not only for the use of columns, but even for what would, under other circumstances, be objectionable, an entablature broken round the columns; since the office of each column is specifically the support of its statue; and since, too, the entablature could not, with an expression of propriety, be carried unbroken across such wide intercolumniations as those caused by the arches. But this subject leads us to notice, lastly, the application of columns to structures whose principal end is that of ornamental effect. And here it is obvious, that we are not at liberty to require the application of the principles of utility more strictly to the management of detail, than to the object of the entire composition. This consideration, indeed, might

have disposed of objections on the ground of superfluity, in the decoration of the triumphal arch. It is a consideration, also, which will apply with much force to the composition of steeples; objects in which, after all allowance for the demands of a belfry, the chief purpose desired is that of designation to the eye. Here, then, it is idle to look for any further recognition of utility in the use of columns than that which relates to fitness of effect, subject always to the expression of constructive practicability. Members, elsewhere superfluous, are here appropriate, if they promote a characteristic tendency of lines, and a progressive lightness of ornament. Here, also, the preservation of unbroken entablatures is not to be enforced, since the effect to be attained is directly the reverse of that which is appropriate to elevations of the ordinary lengthened form, whose prevailing lines are horizontal, and wherein, therefore, the entablature must be continuous and uninterrupted by needless angles. On the other hand, it is the object, in steeple composition, to counteract that predominance of horizontal lines so incident to the classical styles of architecture, and to substitute for it a vertical and aspiring tendency of form; which, of course, can only be preserved by multiplying the perpendicular and breaking the necessary horizontal members, so as to lead the eye imperceptibly upwards from story to story. A due consideration of this object may also lead us to view with indulgence the numerous breaks of entablature so common in the Palladian school of design, when they are found to occur in elevations of more stories of orders than one, and in which the height may be unusually great in proportion to the length of frontage.

The preceding observations, it is hoped, will comprehend a notice of the leading principles upon which the column may be employed consistently with utility. There are, however, many inferior modes of its application to which we might advert, but that their discussion would greatly exceed our present purpose. What has been already advanced, briefly as we have been compelled to allude to several developements of the subject, will not be without a beneficial effect if it tend to illustrate those principles by which our old masters have produced their happiest compositions, and if it lead to the observance of the following considerations: — that our reasonings upon architectural fitness are not to proceed upon the supposition of the universal and exclusive applicability of rules derived from the limited resources of Greece; that such rules especially demand modification as they stand affected by the introduction of the arch, the practical tendency of which is to supersede the entablature; that the maintenance of a doubtful and (as we believe) inconsistent theory, with reference to the origin of the column and entablature, de-

serves to be discontinued, as calculated to destroy the vigour of design, by leaving it in constant exposure to all kinds of supposedly false expression; and, lastly, that true architectural significancy and character can be obtained, not by copying the antique, but alone by liberally accommodating its formulary to our own wants, under the full impression that the degree of decoration bestowed upon any feature must be apportioned to its utility; a principle equally though variously developed in the colonnaded temple of the south, and the gorgeously illumined cathedral of the north.

ART. II. *Forsyth's Architectural Opinions.* By VERUS.

IN our observations, p. 243., we pointed out the discrepancy between the reasoning and the conclusions of Candidus on Forsyth's architectural opinions; we asked what grand principle, what practical doctrine, he was desirous of inculcating; and we showed that, with a very evident wish to demolish, he had really helped to establish an authority. To this we may add, that, if his destructive ability had been equal to his intentions, he would, like other pseudo-critics, have been contented to destroy, without attempting to raise up any thing in place of what he had taken pains to overturn. We need not go far to seek the origin of all this sophistry. We apprehend the absence of any *certain* principles of the art in the mind of Candidus is a sufficient explanation of the fact.

It will be generally allowed, that no one, who acknowledges no settled principles on science, is entitled to appear in the light of a preceptor. This position, however certain, is often overlooked: but we beg the reader to bear it in mind, for it is important towards the illustration of our point. In the following brief examination of one or two of his arguments, we propose to subject him to the *test of principle.* The perusal of Candidus's paper (p. 148.) seems intended to leave his readers with the impression on their minds that no piece of architecture in Venice is worthier of admiration than the doge's palace. The Procurative, the Biblioteca, or any other building of or since the age of Palladio, cannot, according to his doctrine, pretend to any beauty, because Sansovino, Scamozzi, Longhena, &c., are all more or less of the Palladian school, which is, indeed, merely the Italian school purged of its greatest vices; and all these are confessedly inferior to him in the same line. In the first place, it will be admitted by all, that an elevation worthy to be cited as a piece of architecture should at least exhibit the characteristics of the style in which it is built. To what style, then, we ask, does the palace in question belong? Why, to the Gothic; and the Gothic

of the 14th century, the period of its highest perfection in all countries where it prevailed. We expect, then, if we are invited to admire its architecture, a full developement of the pointed style of building; exhibiting high pointed arches, and, in the words of Mr. Willis, "pinnacles, buttresses, tracery, and clustered columns; rib vaulting and lofty towers; the bare enumeration of which is considered to be a sufficient definition of Gothic." (See Willis's *Essay on the Architecture of the Middle Ages.*) Something of this we may reasonably expect to find, and something of that system of light and aspiring forms, which is the leading principle of Gothic composition. Now, observe the ducal palace; the character is, on the contrary, that of a low massive square pile; the windows, which should be large, lofty, and filled with tracery, are broad short apertures, few and far between, and undivided by any mullion-work. The piers between the windows, which in fine Gothic examples are adorned with buttresses and tabernacles, are here bald, bare, and heavy. Instead of the clustered pier, we observe in the lower arcades short stout cylindrical columns of Norman heaviness, not of Gothic elegance, and ill according with the pointed arches, which spring from their foliated capitals. Lastly, the sky line, instead of bristling with pinnacles and points, takes an uninterrupted horizontal direction; and the cornice bears a parapet of a mongrel, and of the poorest, character. On what, then, we repeat, does Candidus (architecturally speaking) rest his admiration of this building? Is not Forsyth more correct than his commentator, who appears not to perceive any thing inharmonious in this struggle between two opposite principles, producing a composition that is neither Greek nor Gothic? If it is only the piebald face and glitter of gay marbles, and historical interest, which has charmed his mind, and warped his judgment, we do not wish to disenchant him; we leave him in possession of the adventitious and imaginary, but he must concede the abstract and real beauty. And if he would have his opinions respected, he must not assume *other* grounds when he criticises *other* styles of building. If he abandons the test of the *principles of the art* in one case, he must not resume them in another. We must not be understood to deny the existence of a certain degree of merit in the edifice under discussion; but we say of this in particular, what Mr. Willis says of a class of Italian buildings in general, "Although it wants the repose of the Grecian, and the lofty upward tendency and pyramidal majesty of the Gothic, it is yet replete with many an interesting and valuable architectural lesson; . . . but it has missed the decided character of the two great schools of architecture." There are, besides, parts worthy of fixing our attention, which Candidus seems to have overlooked; for instance, the sculpture of the foliage and imagery of the capitals of the columns is very

far superior indeed to any contemporary work on this side the Alps. But what we hinted in our former observations, namely, the many interesting recollections we are wont to associate with the appearance of the ducal palace of Venice, is the principal cause, and furnishes us with an easy explication of the cause of its general attraction. We shall briefly illustrate this position; viz., how the mind of the spectator is apt to be influenced by accidental circumstances in determining the value of an object of art, more than he is by a fair consideration of its abstract merit. It is a rare thing, for example, to find any one so dead to poetry and romance, as not to take a sort of mournful interest in the contemplation of the Bridge of Sighs, and the adjoining prisons. There are few, again, so dull or matter-of-fact, that their sensibility is not quickened on the first view of the Rialto, by the connexion its name bears with the writings of Shakspeare, Otway, and Byron. Whether the draughtsman is or is not aware of the reason, it is mainly owing to this secret indefinite charm, that all artists have, as if by common consent, delineated the forms of these structures, as well as that of the doge's palace. But there is another fabric in the same city almost as familiar to the untravelled, as to the traveller; it is the Church of S. Maria della Salute. We cannot account for the frequent pictorial representations of this on the same grounds as those just adduced, but we easily find the explanation of the fact in its happy site, and in the uncommonly picturesque outline it presents to the eye from almost every point of view. If, then, the assertion be correct, that mere picturesqueness is proof of merit of design, this church is surely a model of symmetry and taste. But is it so really? On the contrary, it is in spite of *extraordinary* defects that the composition is so very attractive to a painter. In what style, however, is it built? The readers of Candidus's observations will be surprised to hear that it is of the reprobate school of Palladio, and, moreover, that it combines in itself more than all the faults of taste and practice which Candidus has culled from all the scattered works of that artist! Forasmuch as he condemns the one, far more is he bound in common consistency to denounce the other. This, however, he cannot pretend to do; because he has asserted that the doge's palace must needs be a fine piece of architecture, since it has great attractions in the eyes of painters; and for the same reason, it follows, that the edifices just named are all admirable, and especially S. M. della Salute, since it alone has perhaps more employed the pencil of artists than any other building in all Venice, from the days of Canaletti, Guardi, and Marieschi, to those of Bonington, Prout, and Harding. It is, therefore, beautiful; and it is nevertheless redundant in the vice of the system which he has unhesitatingly declared to be altogether worthless, it is consequently contemptible: and in this predicament we

leave Candidus, as far as regards this section of his argument. Thus it is that gentlemen, misled by a determination to make every thing suit their theory, may become such fallacious reasoners, that they unwittingly establish a worse sample of the very style which they repudiate, as a fit object of admiration and imitation.

We might here conclude our strictures; but some further observations of Forsyth's reviewer (p. 202.) are so singularly ingenuous and futile, that we ought not to refrain from noticing them. If his former argumentation was of a nature to be fatal to the cause which it undertook to sustain, the present, we humbly opine, cannot possibly mislead the judgment of the least reflecting mind. Shall we, for example, call the following a convincing argument? — "I have heard an individual, a tasteful and enthusiastically studious architect, express himself in regard to Palladio, in terms little short of execration." We need not doubt the taste of this nameless authority. So have we heard otherwise very sensible persons express themselves, in regard to Thom's statues of Tam O'Shanter and Souter Johnnie, in terms of admiration far greater than they bestowed on those of Phidias; and have heard them dwell with delight on the night-cap and worsted stockings of the Scotch boors, though they could not admire the form of Theseus, or that of the river god Ilissus. Very wise persons, again, may, and often do, express themselves enthusiastically on the merits of the marble effigy of Lord Dudley's spotted dog, Bashaw; and the same might be perfectly unmoved on beholding Giovanni Bologna's Mercury, or M. Angelo's Lorenzo de' Medici. And what does all this prove? That the figures of the Scotch peasants, and the Newfoundland dog, are of an order of art higher than those of the heroes and gods sculptured by Phidias, and the two Italians just named? Certainly not. It merely demonstrates the fact, that such opinionists are deficient in a just apprehension of what, and in what, consists the excellency of design. In like manner, the expressed opinion, that the elevations of the doge's palace are of an architecture more orderly, correct, and abstractedly beautiful, than the arcades of the court of the Carità at Venice, the fronts of the Farnese Palace at Rome, or the P. Pompei at Verona, is no more worthy of acceptance than the taste of Voltaire's toad, whose perfection of beauty was a freckled back and a pair of goggle eyes.

THOUGH we have given insertion to this article as an original communication, in consequence of its being a continuation of one in a former No., any further controversy between Candidus and Verus, on the subject of Palladio, must be confined to the department of Retrospective Criticism. — *Cond.*

REVIEWS.

ART. I. *Remarks on the Architecture of the Middle Ages, especially of Italy.* By R. Willis, M.A. F.R.S. &c. &c.

THE general design of this work has been already stated in the brief extracts from its preface, which appeared in our Number for May. We proceed to fulfil the intention we then expressed, of bestowing a more detailed notice on its contents; which, while they are calculated to illustrate the history of architecture by examples produced, and classifications suggested, tend also to the more important object of practical improvement, by leading conspicuously forward most of those principles from which the structures of the middle ages derive their essential characteristics. Considerable thanks, indeed, are due to Mr. Willis, for having brought so much patience to the investigation of a provincial mode of architecture, confessedly the least interesting, on the score of beauty, of all the contemporary European systems; for, as he himself allows, "Gothic architecture cannot be said to have flourished in Italy at any time, or to have produced there specimens of beauty and grandeur at all comparable with those which arose under its influence on our own side of the Alps." We quite agree with him, however, in considering that this constitutes no reason why an examination of Italian Gothic should be neglected; and, in believing that, where principles are to be elicited only from the study of examples, "the greater the number of examples that can be compared the better; that we are by no means to confine ourselves to the most excellent, for we may often detect the rules of successful practice by comparing the attempts of unskilful artists, or the experiments of experienced ones, with those specimens in which the desired effect has been obtained in the highest degree." In this point of view the edifices of Italy possess a peculiar interest, as they appear to have been the result of a continual struggle between two principles, carried on by artists of high ability." (p. 2.)

In his introductory chapter (from which we have just quoted) Mr. Willis proceeds to touch upon the general character of the Italian Gothic, as deriving its peculiarities from the studies of artists of original thought, seeking to unite the principles of the pointed style with those obtained from the classical remains of antiquity on all sides present to their notice. That such an attempt, however, should be attended with failure is in no respect matter of surprise; and thus "the curious result is a style in which the horizontal and vertical lines equally predominate, and which wants alike the lateral extension and repose of the Grecian, and the lofty upward tendency and pyramidal majesty of the Gothic." The sequel introduces us to examples which sufficiently expose the futility of any attempt to form a system pretending to decision of character, by endeavouring to equalise the operation of the horizontal and vertical tendencies of line. After some judicious remarks upon the progress of architectural systems, the indication in many specimens of successive transitions from one stage of cultivation to another, and the discrimination requisite to be applied to other examples which, probably, exhibit the imitation of foreign novelties rather than the regular transitions of an individual style, the author proceeds, in his second chapter, to advance some important observations on the distinctive characteristics of mechanical and decorative construction; the former as referring to the actual, and the latter to the apparent, mode of the support of the weights of a structure. The developement of these distinctions in the style of the classical and in that of the middle ages, may be understood from his own words:—"In Egypt and in Greece we behold the actual stones, of which the building is composed, ornamented with mouldings, and so decorated as to display their connection, while the whole style of architecture is accommodated to the principle of horizontal weights resting on perpendicular props. In this case the decorative construction of the building is identical with its mechanical construction." When,

however, the arch becomes introduced, "the diagonal strains which it produces must be provided for; and, as the decorative system of the Greeks was founded upon a mechanical structure that only exerted perpendicular pressures, it is clear that the diagonal ones must be concealed by huge rectangular masses, decorated so as to appear as if sustaining vertical pressures only, unless we choose to invent new decorative forms for the diagonal props. The Romans attempted concealment, and hence introduced discordance between the decoration and the mechanism of the structure. The Gothic builders, in later times, more wisely adapted their decoration to the exact direction of the resisting forces required by the vaulted structure;" for, eventually, when, in the districts remote from Rome, "the ravages of the barbarians had swept away the ancient rules altogether, and left only the shattered examples, we find that, after they had settled themselves in their conquests, their builders, working as unschooled imitators, copied the construction of these ruins, and employed their materials, using the fragments of decoration, but naturally placing them so as to be entirely subservient to the actual construction of the building." Hence the formation of the Romanesque, Lombard, Norman, Saracenic, and like styles; and from these, ultimately, after a long process of improvement, during which the arch and vault rose to the supreme place in importance and the government of expression, issues the complete Gothic. "This style is remarkable for the skill with which all the ornamental parts are made to enter into the apparent construction. Every member, nay, almost every moulding, is a sustainer of weight; and it is by this multiplicity of props assisting each other, and the consequent subdivision of weight, that the eye becomes satisfied of the stability of the building, notwithstanding their slender proportions. Add to this, that the greatest pains are bestowed in giving apparent lightness to the weight sustained; while in the mechanical construction, no less practical knowledge is displayed in proportioning props to pressures. To appreciate this it is only necessary to compare the Roman vaulted halls with the Gothic cathedrals." (p. 21.)

Passing over the remainder of this interesting subject, we find the author, in the succeeding chapters, discoursing upon the leading members of Gothic composition, one by one, with an especial reference to their treatment in Italian buildings. Much of the detail of pointed architecture he derives from the use of the compound (or, as we should more familiarly express it, with reference to our Anglo-Norman remains, the receding) arch; and to the attendants of, and the derivatives from, the arch, he directs his first attention. Of these attendants we find placed first in order the impost, which term the author uses to signify the decorative forms received by an arch at its springing, under any circumstances of horizontal or vertical extension, and not as restricted to the signification commonly adopted in Palladian architecture. Columnar shafts, and the arches which they sustain, come next under notice. The compound arch is analysed by a subdivision into successive orders or receding planes of decoration, or groups of moulding, proceeding from the face or outward arch, to the inward; and the shafts used to carry such an arch are classified, with relation to their situation below it, whether as forming sole piers as "bearing shafts," or as applied to piers in front as "face-shafts;" on the sides as "sub-shafts;" and intermediately, to projecting or receding angles, as "edge-shafts" and nook-shafts." We are ready to admit the efficiency of such a classification as applied to the simple combinations of Italian Gothic, as well as to those of other European systems, as far, probably, as the middle of the 13th century: we apprehend, however, that it would be impossible to carry it successfully to the elaborate compositions of the fifteenth; in which, besides the complexity of the arch-mouldings, there are often between the face and sub-shafts a foreat of other stems, columnar beads, and based bead and ogee mouldings blending into hollows, &c. The next chapter treats upon the subject of foliation, which mode of ornamenting arches by the subdivision into, or application of, minor segmental forms (whence the cuspidated figures of the after age), appears to have been quite coeval with the adoption of the pointed

arch: to both of these important features Mr. Willis is disposed to attribute a Saracenic origin. He then proceeds to the consideration of tracery, a feature of subsequent invention, the introduction of which he refers, with much appearance of justice, to the varied forms assumed by the compound arch, when the outer order was made to circumscribe more apertures than one. Next in place occurs the subject of vaulting, as transmitted from the later Roman to the middle age architecture. Here the author successfully demonstrates the futility of that still-pleasing theory which would derive the introduction of the pointed arch from the exigencies of vaulting; for his argument, however, we must refer our readers to the work itself, as well as for his classification of the forms of vaulting, and his notice of vaulting ribs, piers, and intermediate arches, triforia, and clere-stories. A chapter on doorways concludes the discussion of detailed members; and this is followed by another on the subjects of the proportions and general plan of Italian Gothic edifices, their exterior decoration, and the composition of towers. To this succeeds a concluding summary of inferences and observations with regard to the history and peculiarities of the various progressive styles of the middle ages, together with a comparison of some of their leading characteristics with parallel points in classical architecture. We are further presented with a "List of the principal Buildings of the Middle Ages in Italy," accompanied with a number of valuable memoranda as to their distinctive features, date, architects, and founders. A notice of the "Dimensions of the principal Italian Campaniles," a list of published works illustrative of the subject immediately under discussion, and a description of the plates, with the plates themselves, fifteen in number, conclude the work; a work evidently the result of much careful observation, and particularly deserving the attention of all who are interested in the history of pointed architecture. — *E.*

ART. II. *Athenian or Grecian Villas: being a Series of original Designs for Villas or Country Residences; to exemplify in Effect its applicability to domestic Edifices of this Country, and its Adaptation in Plan to the modern Arrangement of their usual Apartments.* By Edward Jones, Architect.

THE author adopts, as the motto, the following passage from Col. Leake, "It is particularly in architecture we need the guidance of the Greeks. The more we examine the buildings of the ancients, the stronger do the proofs appear of that profound study which they bestowed upon this most useful and ornamental [? branch] of art." This may be true, with reference to the architecture of temples, but it can hardly be applied in any very intelligible way to the architecture of villas, since we know nothing of those of the Greeks; nor, if we did, could that knowledge be of much use to us, in consequence of the different state of civilisation in which we now find ourselves. Grecian architecture appears to us better adapted for villas than any other kind of architecture, simply because buildings in this style contain a smaller number of curved lines and oblique angles than buildings in any other style; and, consequently, all other circumstances being equal, a greater quantity of accommodation can be obtained for a given amount of expense. No other architecture is so simple as the Grecian; which, with the exception of its ornaments, is wholly composed of perpendicular lines and horizontal lines; it is probable, therefore, that it will always be, as it is at present, the prevailing style, both for public and private buildings; but where a superior degree of richness, variety, and beauty is an object, the Roman style will be preferred, because it contains a new element, and one of great beauty in itself, the arch. Notwithstanding all that can be said in favour of Grecian architecture, it is, from its constituent elements, necessarily inferior in its resources to both the Roman and the Gothic manners of building, for all purposes

whatever, even for temples. It is true, it may be objected to this assertion, that no temple has yet been erected in Roman architecture as perfect in its kind as the temples of the Greeks; but that only shows the greater difficulties attending the Roman style, from the additional element, the arch, which enters into its composition. However much the simplicity of what is called pure Grecian architecture may be admired, reason requires that we should assign it a lower place in the scale of art, than the Roman architecture; simply, because, of two compositions, that into which the greater number of elements enters, must necessarily require the greater exertion of mind to design and execute, and must necessarily be capable of producing the greater beauty.

We make these observations to show that we have no hopes of much being gained by the application of pure Grecian architecture to villas. It is proper, however, that we should permit the author of the work before us to speak for himself, seeing that his opinion seems to be the very opposite of ours.

"When there is scarcely a vestige of many of the temples, stadia, theatres, and odea, which once adorned the country of Greece,—and, perhaps, equalled in design the Parthenon, Erectheion, and Apollo Epicurius,—no very extensive remains could reasonably be expected of the elegant villas, and other buildings of less durable construction; but the desire arising upon this subject, so valuable and interesting, is gratified with an ample knowledge of the designs of Grecian villas, by the fortunate discovery of several bas-reliefs, which exhibit, in a beautiful manner, this style of building; and by the pleasing description of palaces and villas given in the earliest authors. The villas and minor buildings of the Athenians no doubt partook of the same purity of style and elegance in design with their public edifices; for the same feeling for honour and reputation, which animated Ictinus to the accomplishment of his distinguished designs of the Parthenon at Athens, and Apollo Epicurius at Phigalia, would also direct him and other eminent architects in buildings of less magnitude and costliness, though of equal importance to their fame in architecture. The ambition of display of decorations in the private dwellings of the Athenians even excited the wit of Aristophanes, who says, 'Your houses shall be as temples, the roofs shall be triangular, and represent a spread eagle.'" (Preface, p. 6.)

"Having thus ventured to advert to a few of the causes which influenced and directed the Athenians in their acquirement of knowledge in architecture, and which led to their merited preeminence in the arts; it, perhaps, may not be irrelevant to mention, in concluding these few remarks, that the beautifully enriched landscape and picturesque scenery of the British Islands, the chasteness, simplicity, and grandeur of Grecian architecture, and the varied elegances peculiar to this classic style, assimilating with the refinements of the present age, present the strongest inducement for its adaptation to the villas and private residences of this country. Edifices designed in this style of architecture are capable of producing the most pictorial effect, and are uniformly consonant with all the refinements of cultivated art. The admirers and patrons of the laudable and industrious efforts of the human intellect, either in sculpture or painting, would have the most ample opportunity afforded them for the display of their taste in combining chasteness of style in architecture with the richness of effect in sculpture; for statues, vases, bronzes, and other works of art were invariably the adjuncts of the tasteful and elegant buildings of the Greeks." (Preface, p. 8.)

The object of a design, the author states, "being to display, in the most perspicuous manner, the effect of the building when erected," he has had those in his work engraved on a large scale and in perspective, so as to exhibit, as much as possible, the two principal fronts of the edifice. He has, consequently, given neither elevations nor sections; and we may add that his ground plans are on a very small scale, so small, indeed, as to be altogether disproportionate to the perspective views. It is with much regret that we find we cannot speak so favourably of these designs as we could wish; and,

therefore, we shall not say much. Through all the three perspective views there is a want of unity of system, which only requires to be mentioned, to be understood by every reader who has perused, with ordinary attention, our article on that subject in page 1. The defect in unity most conspicuous in these perspective views is, that in some parts the system of employing pilasters or columns to support the walls is adopted, and in some other places the walls are left plain. This seems to us to indicate that the artist has proceeded entirely on his feeling or idea of effect, without consulting his reason. For example, in Design I., the portico supported by columns is placed against a wall of masonry, on which the sizes of the stones are marked! This is the sin of almost every portico of the street houses of London, as we have elsewhere pointed out. In Design II. some parts of the lower story display a system of pilasters, and others are without them; but on the second story there is a portico placed against a front of plain stonework. Design III. has the same sort of fault, and exhibits a boundary parapet, or peribola fence, containing open compartments filled in with an ornament, consisting of a large flower joined to the piers, sill, and lintel by the points of its petals, and conveying ideas the very opposite of architectural. The ground plans of these buildings, the author informs us, "are the simplest possible." We acknowledge them to be so; they remind us of the dreary houses of the Russian nobility in Petersburg and Moscow, in which one naked parallelogram or right-angled room opens into another, throughout, and where a bow window, a curvilinear plan, or a coved ceiling, is never met with. Will any one assert that such meagre apartments, purely Grecian as they are considered, are at all to be compared with those where a variety with curvilinear surfaces are introduced? The landscape, which has been joined to the perspective views, is in excessively bad taste; and some of the trees are most preposterous objects. To prove the incongruity of the landscape, we shall just mention that in one view roses and hollyhocks are shown in the rough ground exterior to the peribola; and that, in another, some beautifully exotic forms are shown outside the peribola, and common-looking bushes within.

We repeat that it gives us pain to make these remarks, but we can assure Mr. Jones that we could not avoid doing so consistently with our ideas of our duty. If he thinks we have done him the slightest injustice, or if he wishes to explain any point, we shall, in this, as in every similar case, be most happy to publish his reply or defence. If, on the other hand, he is a right-minded person, this review may lead him to examine himself, and ultimately be of the greatest use to him.

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MOST of these designs are good, and there are two specifications. Design I., a peasant's cottage, has shields on the chimney top and a coat of arms over the door, we suppose to indicate to whom the cottage belongs. We cannot consider this in good taste. The ground floor of this cottage consists

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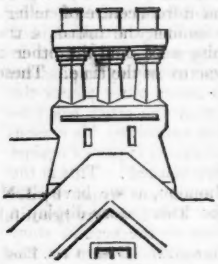

of two rooms, each of which has three doors and seven windows; the whole, of course, for effect. We hope, for the sake of the occupants, that the casements fit tightly. The two bed-rooms have two separate staircases, and only one window each. Design II., a cottage intended as a small farm house, has a stack of chimneys (*fig.*161.) which cannot be considered as composed of harmonious forms and lines. Design III., an ornamental peasant's cottage, contains a chimney shaft (*fig.* 162.) which amused us by its novelty. Design IV., isometrical view of eight peasant's cottages. Design V. is for a country inn, and seems very well arranged; the elevation is also good; but it has one unpardonable fault, viz., two trunks of trees as columns for the entrance porch. The incongruity of this mode of building we have before pointed out. (See Vol. I. p. 143.)

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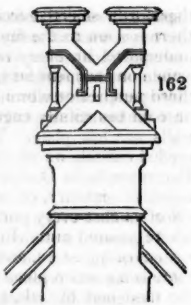

A specification is given to Design I., which we regret to be obliged to say is very imperfectly expressed, as such documents generally are.

A supplement to the second part of Goodwin's *Rural Architecture* is bound up in the same volume. Design I. is a cottage dedicated to the Hon. E. J. Littleton, Esq., M.P. (now Lord Hatherton). It displays a good deal of contrivance within, and, in consequence of the four corners of the parallelogram ground plan being cut off, and the roof being supported by four octagon columns, displays a good deal of variety when viewed at different angles. Design II. is an ornamental cottage or gate lodge to a park. The general effect is good, though the mixture of Gothic battlements and high gables will not bear strict criticism in a historical point of view, or even viewing them with a reference only to the harmony of forms and lines. Design III., a cottage or dairy farm house, is good. Design IV., seven peasant's cottages. Six of these are very comfortless dwellings, consisting of only one sitting-room, 10 ft. by 12 ft., and one bed-room, 10 ft. by 6 ft., on the ground floor. Four of these cottages have porches for the sake of effect, and three others are without them for the same reason. This is bad; so much so, in our opinion, that we dare hardly trust ourselves with an off-hand expression to designate it. Sound reason requires that comfort should be studied first, and that ornament or effect should always be subordinate. The ornaments, indeed, of any building should always arise out of its uses, or out of its mode of construction; but here, on the contrary, the mode of construction is made to give way to the mode of ornamenting, which is as contrary to common sense as it is to architectural fitness. A specification to Design I. completes this second part. The last design in Part IV. is by far the worst in the book, and the design for a country inn, in Part I., is much the best. All the plates are well engraved, and the trees are somewhat better than they are in the work to which this volume is a supplement.

Nothing is said, in these *Supplements*, of "a novel and perfectly satisfactory mode of ascertaining the cost of any building," which Mr. Goodwin, in his second volume, promised to give in his third. (See our Vol. I. p. 135.)

ART. IV. *Gothic Ornaments illustrative of Prior Birde's Oratory, in the Abbey Church, Bath.* By Edward Davis, Architect.

WE noticed No. III. of this work in Vol. I. p. 370. The present number contains a plan of the oratory, showing its beautiful groined ceiling; small

spandrils selected from the lower compartments of the windows; angular termination to the fan groining; boss and compartment from centre of ceiling; compartments and ceiling, with the initials of the founder, the initial in the one compartment being a plant with its leaves forming a W., and the other a bird perched on a branch, according to the quaint practice of the time. These are all beautifully engraved.

Art. V. *Engravings.*

South-East View of Norwich Castle in 1834. Drawn on Stone by J. N. Hakewill, Architect, and published by the Author. This is a very beautiful engraving of a building of great antiquity.

Elevation and Ground Plan of the newly erected Custom-House at New York. Designed by Ithiel Town, and Alexander Jackson Davis, Architects. From the Lithographic Press of Stoddart and Currier. We are sorry not to be able to speak in terms of commendation of this design. As, however, we shall have to treat of it at length, when we give drawings and a description of the improvements made in the building by our correspondent, Mr. Ross, formerly an architect at Bristol, but now settled in New York, we will only observe that the lithography is very good as far as regards the lines, which are clear and distinct, without any muddiness. The drawing is out of perspective, but this is probably the fault of the designers of the building.

Stonehenge. Drawn from Nature, on Stone, by J. Brown, Amesbury. A well executed, and, as far as our memory serves us, correct view of this well known and stupendous monument.

Art. VI. *Colman's Normandy, Picardy, &c. &c., containing Views of some of the most picturesque Exteriors and Interiors of Cathedrals, Churches, and other Objects in Northern France,* sketched from Nature and drawn on Stone by himself. No. I. Imperial 4to. London, 1835. Plain, 5*s.* 6*d.*; India Proofs, 7*s.* 6*d.*

"Upon returning from a recent tour in Normandy, Picardy, and other parts of France, the author of the present publication was advised by his professional friends to publish, from sketches taken on the spot, a series of views illustrative of that extensive portion of our ancient dominions; interesting both from the variety and venerable antiquity that distinguish its cathedrals and churches, which, with the picturesque effect discernible in almost every street, form subjects that, to the eye of the amateur, are full of pleasing associations.

"It has been suggested that, in order to render this work more acceptable to the public at large, it would be advisable to present a descriptive account of each plate; and, in its compiling, it will be the author's anxious endeavour to point out all those objects, which, during a tour embracing a distance of upwards of six hundred and fifty miles, more particularly attracted his attention: to this he purposes adding such information as will be likely to interest those who have visited this extremely romantic country, or be useful to any who intend thither to direct their steps.

"The work will be completed in four parts, containing sixteen plates and four vignettes; and to render it more worthy of the great patronage it has already received, he has employed printers of the first eminence."

The work is most beautifully got up. No. I. contains a view of that singular object, Mount St. Michael; the general view of Rouen from Mount St. Catherine; Notre Dame, a ruin; La Grosse Horloge, a ruin; and the interior of Chartres Cathedral, in the city of that name, on the river Eure, in Orleans.

ART. VII. *The Cabinetmaker's Sketch Book of plain and useful Designs.* By T. King. 4to, Part I. London. 4*s.* 6*d.*

No year is printed on the titlepage or wrapper of this work, which does not look well, since it might be interpreted into an intention of making it always appear to be new; however, this is probably, in the present instance, an accidental omission. Part I. contains 18 designs for chairs, lithographed on six plates; twelve of these are drawingroom chairs, three are for bedrooms, and three are for hall chairs. It is stated, on the wrapper, that parts II., III., and IV. "will be confined entirely to chair and sofa work, and the parts following to cabinetwork generally." The work is good and cheap, and we wish it every success.

ART. VIII. *An Account of the Mining Districts of Alston Moor, Weardale, and Teesdale, in Cumberland and Durham; comprising Descriptive Sketches of the Scenery, Antiquities, Geology, and Mining Operations in the upper Dales of the Rivers Tyne, Wear, and Tees.* By T. Sopwith, Land and Mine Surveyor. Small 8vo. Alnwick, 1833. 4*s.* 6*d.*

To all who are desirous of having some practical knowledge of geology and mining, and who can spare a month to walk over Alston Moor and the other districts, we most strongly recommend this little work as a companion. We do not know any manner in which a young architect, engineer, or land surveyor, could spend a month's holidays with more advantage either to his mind or to his health, than in traversing such a district; and if our plan of walking were adopted, the whole expense need not exceed five pounds, exclusive of the cost of going by sea, or outside the coach, to Newcastle on Tyne.

"The lead mining districts of the north of England comprise an extensive range of highly picturesque scenery, which is rendered still more interesting by numerous objects which claim the attention of the antiquary, the geologist, and the mineralogist, and, in short, of all who delight in the combined attractions of nature, science, and art. Of these districts no detailed account has been given to the public; and a familiar description of the northern lead mines, in which so many persons in this part of the kingdom are concerned, has long been a desideratum in local literature. The present volume aspires not to the merit of supplying this want; but, by descriptive notices of the principal objects of attraction, it is intended to convey some general ideas of the nature of the lead-mining districts, and to afford some information which may serve as a guide to those who visit them." (Preface.)

ART. IX. *Expositions and Illustrations, interesting to all those concerned in Steam Power, whether as applied to Railroads, common Roads, or to Sea and Inland Navigation.* By Francis Maceroni, late Aide-de-Camp to Joachim Murat, King of Naples; Officer (Knight) of the Legion of Honour; and of the Order of St. George of the Two Sicilies. &c. &c. Pamphlet, 8vo, 126 pages, with several Woodcuts. London, 1835.

COLONEL MACERONI is a man of extraordinary powers of mind, and of diversified experience as a military man and a diplomatist. Of the merits of his steam carriage described in this pamphlet, as compared with those of others, we are not able to judge; nor do we consider ourselves bound to

enter into a detail of its merits, seeing that there are the *Mechanic's Magazine*, and Gordon's *Journal of Engineering*, expressly devoted to such subjects.

ART. X. *Rules of the Artists' Conversazione of Newcastle upon Tyne, established April* 20. 1831. Pamphlet, 8vo. Newcastle, 1831.

THE members of this Society meet one evening in each month, for the purpose of inspecting works of art to be produced by each member; and for conversing on subjects connected with the fine arts. Each member has the privilege of introducing one visitor. Such an institution is well calculated both to improve professional artists and amateurs, and to spread a taste for art among their friends and, consequently, among society generally. We could wish to hear of such conversaziones being established in every town.

ART. XI. *Address and Regulations of the Institute of British Architects, explanatory of their Views and Objects, with a List of the Members, and of the Contributors to the Collection, Library, &c.* 12mo. London, 1835.

WE congratulate the architects of Britain on the establishment of this institution, which we ardently desire may be liberally supported. The following extracts from the address will show the objects contemplated:—

"An association of this nature must be obviously advantageous to the country at large, from its responsibility to public opinion for the direction and maintenance of the national character for taste, and from its affording a body to whom individuals may have recourse for its opinion upon professional matters. But no less beneficial must it be to the general body of the profession, from a determination to uphold, by their united exertions, the character and respectability of its professors.

"With a view to the promotion of such important objects, the founders of the Institute of British Architects have united. A few of the advantages they contemplate, and the utility that may be expected to result from their association will, therefore, be here briefly stated, and though briefly, yet it is hoped sufficiently to insure the patronage and cooperation of the enlightened lovers of the art among the ranks of the nobility and gentry of these realms.

"The members of the Institute will be either professional or honorary. The former will be divided into two classes, fellows and associates. The honorary members will consist of noblemen and gentlemen, donors to the amount of no less than twenty-five guineas in one sum; and of foreign architects, or men of distinguished scientific attainments, whether in this or any other country, without contribution.

"The formation of a library of printed works of every species connected with architecture is, of course, of primary importance. To this, it is hoped, may be added manuscripts of a similar description, to be deposited for the inspection of all the members, and drawings illustrative practically and theoretically of the art, in its widest application.

"Another object of the Society will be the publication, at stated periods, of such communications as may be curious and interesting to the public and to the profession.

"The Institute is now forming a museum of antiquities, models, casts, specimens of materials used in building, and of all such other objects as may tend to the illustration of the arts and sciences in their application to design and construction; and have it in contemplation to provide means for performing experiments on the nature and property of materials, as respects their useful employment in construction.

"It is presumed that, independently of the manifest advantages that must result from the periodical meetings of the members of such a Society, great and lasting benefits may be justly expected from the spirit of laudable rivalry and inquiry induced and diffused amongst them; and from the mutual good understanding between its members, promoted by their frequent meetings; to which may be added, the knowledge circulated by their intercourse, and the discussions consequent on a correspondence proposed throughout Europe, relative to any great works in course of execution, or already executed, in different countries.

"With such views, and with the object of gaining at the hands of the public a reliance on those professors who are *boná fide* architects, one of the principal features will be the maintenance of a high standard of professional character and honourable practice in the members.

"Without aid beyond the circle of its professional members, it will at first, perhaps, be difficult to carry such a Society into full effect. The founders, in this respect, cannot but rely on the munificence which distinguishes so many noblemen and gentlemen in the country, for their patronage of the fine arts, for assistance to the Institute, in whose success they are necessarily interested. For such extensive views, the funds will, of course, depend on the number of its members: of these it is at present impossible to form an adequate conjecture, but on them must depend the extent of their application. It may not, perhaps, be assuming too much to suppose that, as in the case of other societies, certainly not more important to the community, the government will not only afford to the Institute a place for holding its meetings, and depositing the collection it may acquire, but will also readily acquiesce in the application for a charter, by which it may be incorporated. Beyond the ordinary expenses of the Institute would be those attendant on the annual or other periodical publication of communications; the payment occasionally of draftsmen, in cases of extraordinary or interesting buildings, a memorial of which should be preserved; the formation of the library, and, perhaps, the distribution of prizes for works which have been published by the members; for the encouragement of particular branches of architecture, by essays or designs, theoretical and practical; and for the suggestions of improvements in building, worthy of the objects on which they may be bestowed.

"The foregoing may be considered, then, the general objects of the Institute, which are, in few words, the promotion and encouragement, by all the means in their power, of the art and science which the founders profess. It is their desire, more especially, to advance these objects by acting in concert with all other institutions, both at home and abroad, with whom there exists a community of sentiment; and to disclaim at the same time, most decidedly, interference with any existing establishment."

The regulations occupy 15 or 16 pages, and at the commencement of the tract is given a list of the council, the fellows, the members, and the associates. The president of the council is Earl de Grey; the vice-presidents, P. F. Robinson, Joseph Kay and J. B. Papworth; the secretaries, Thos. L. Donaldson and John Goldicutt; ordinary members of council, Charles Barry, George Basevi, jun., Edward Blore, Decimus Burton, Charles Fowler, Henry E. Kendall, and Henry Rhodes; treasurer and banker, Sir Thomas Harvey Farquhar, Bart., St. James's Street; honorary solicitor, William L. Donaldson, 7. Hart Street, Bloomsbury Square. Architects in the country who wish to become fellows, will, of course, address one of the secretaries.

ART. XII. *Catalogue of Works on Architecture, Building, and Furnishing, and on the Arts more immediately connected therewith, recently published.*

A CATALOGUE *of Books on the Sciences, Astronomy, Mathematics, Natural Philosophy, &c.*; with some added that are Curious and Miscellaneous, chiefly

from the Libraries of the Rev. Nevil Maskelyne, D.D., Astronomer Royal and F.R.S.; Bishop Horsley, F.R.S. &c.; Dr. Charles Hutton, LL.D. F.R.S., &c.; William Philips, F.R.S. and G.S.S.; and Richard Heber, Esq.; on sale by John Weale, Scientific and Architectural Bookseller, 59. High Holborn, 8vo. London, 1835.

An Apology for the Architectural Monstrosities of London, and a Refutation of the many Misstatements respecting the Practice of Architecture in this Country, contained in a Letter written by Lieut.-Colonel the Hon. Sir Edward Cust to the Right Hon. Sir Robert Peel, Bart., M.P. 8vo. 1*s.*

Strictures on Architectural Monstrosities, and Suggestions for an Improvement in the Direction of Public Works. By T. Juvara. 8vo. 6*d.*

Thoughts on the Style of Architecture to be adopted in Rebuilding the Houses of Parliament. By the Author of the *Apology*, &c.

Houses of Parliament and Westminster Palaces. — Nos. I. to VI. are published of Britton and Brayley's History and Description of the late Houses of Parliament, and Ancient Palatial Edifices of Westminster, and the work will be completed in June, in Ten Parts.

Art. XIII. *Literary Notices.*

The Antiquities of Athens, accurately measured and delineated by Stuart and Revett, are now in a course of republication, in imperial folio. This work contains 384 engravings, by eminent artists, accompanied by essays, architectural, classical, historical, explanatory, and descriptive; exhibiting and elucidating the purest examples of Grecian architecture. The re-issue is published in parts, at 5*s.* each, any of which may be procured separately.

The Architectural Antiquities of Rome, accurately measured and delineated by Antoine Desgodetz, Architect Royal to His Most Christian Majesty, and Professor of Architecture in the Royal Academy of Fine Arts, at Paris. The text translated and the plates engraved by George Marshall, architect. This work contains 137 folio plates; the subjects are selected from the most esteemed specimens of Roman architectural magnificence, with descriptions and explanations in French and English. It will be completed in twenty-one parts, at 5*s.* each, forming two folio volumes. The original price was ten guineas.

Lewis's Sketches of the Alhambra, made in the years 1833–4; consisting of twenty-five of the most interesting scenes of the interior and exterior of that splendid monument of Moorish grandeur, a palace the most elaborate in beauty of decoration of any now existing, and the once celebrated Fortress of Granada; drawn on stone, in exact imitation of the original drawings, by J. D. Harding, R. Lane, A.R.A., W. Gauci, and John F. Lewis; are preparing for publication.

Select Specimens of Gothic Architecture, by William Caveler, architect, will be shortly published.

Plans, Elevations, Sections, Details, and Views of the splendid Church of Batalha, in the province of Estramadura, in Portugal, with a history and description, by Father Luis de Sousa, with remarks; to which is prefixed, an Introductory Discourse upon the Principles of Gothic Architecture, by James Murphy, architect; illustrated with twenty-seven most elaborately engraved plates, by the first artists; are preparing for publication.

The History and Antiquities of Little Maplestead Church, Essex, accompanied by a brief account of the Knights Hospitallers of Saint John of Jerusalem, from the introduction of the Order into England, until its final suppression at the dissolution of the religious houses in 1540, by William Wallen, architect, will soon appear.

Hydraulia; an historical and descriptive Account of the Water Works of London, and the contrivances for supplying other great cities, in different ages

and countries; by William Matthews, author of *The History of Gas Lighting*, &c.; is nearly ready.

Designs for Iron and Brass Work, in the style of the fifteenth and sixteenth centuries; consisting of twenty-five plates of locks, hinges, bolts, handles, fire dogs, grates, railings, vanes, lamps, lectoriums, &c.; designed and etched by A. Welby Pugin, architect; are in progress.

Designs for Gold and Silver Smiths, in the style of the fifteenth and sixteenth centuries; consisting of twenty-five plates of cups, salt-cellars, epergnes, flagons, tankards, salvers, sconces, clocks, chalices, crucifixes, monstrances, reliquaries, feretra, &c.; designed and etched by A. Welby Pugin, architect; are in progress.

An Historical Sketch of the Art of Sculpture in Wood; with a critical examination of twenty-five magnificent statues of the most distinguished Protestants that formerly adorned the library of the church of Santi Giovanni e Paoli, at Venice, executed by Andrea Brustolina; will shortly be published.

The Steam Engine, explained and illustrated in a familiar style, with its application to the arts and manufactures, more especially in transport by land and water; with some account of the railroads now in progress in various parts of the world. By the Rev. Dionysius Lardner, LL.D. Fifth edition. One vol. 12mo. Illustrated with numerous engravings and woodcuts. In the press.

MISCELLANEOUS INTELLIGENCE.

Art. I. *General Notices.*

Wolff's Ideas on Intercolumniation. — Intercolumniation has hitherto been regulated by the diameter of the column, without regard to its height; whereas Wolff shows that it should be governed by the latter rather than the former scale. Whatever may be the height of the column, that will determine the distance from its axis to that of some other in the same range, whether it be the third or the fourth from the first, according as it is intended to have the columns closer together, or wider apart; and this, of course, determines the spaces between these, and the intermediate column or columns, and all the succeeding ones. By this means, an harmonious succession of squares, formed by each column and the third or fourth from it is obtained. Neither, as Wolff further observes, is it necessary that such squares should invariably be restricted to the measurement from the axis, and admit of no other change than that arising from the number of intermediate columns; because the fourth column may either be included in, or excluded from, each figure, the boundary of which will then be defined by one of its sides. He also shows how, in the Doric, the measure may be regulated, not by the height of the column alone, but by that to the top of the triglyph in the frieze, as that gives an extent of vertical line. (p. 155.)

Cooling and Ventilating in warm Climates. — Captain R. Wauchope, R.N., has shown, in *Jameson's Journal*, Oct., 1831, that this may be easily effected by forcing in air through porous earthenware tubes, kept moist exteriorly. The great evaporation which will take place on the outer surface of the pipes will cool the air in its passage through them. If, by some similar process, the air charged with moisture in cold climates could be deprived of that moisture before it entered dwelling-houses, the benefit to invalids would probably be very great. — *Cond.*

Heating Dwelling-houses by Hot Water. — I venture to predict that in ten years there will be an end of the application of hot water in heating dwelling

buildings, unless some mode is devised that will get rid of its present many inconveniences under every form and modification of apparatus; this is my present conviction, and an unbiassed opinion, as you may judge, as I have put more people *in hot water* than any other person in this country. — *P. Q. R. Dublin, March*, 1835.

Concealed Wash-hand Stand. — In a room which I let to a young married couple, who cannot afford to pay rent for more than one apartment, it was desirable to have a concealed wash-stand; but there was no convenient place for any of the ordinary cabinets containing the necessary apparatus for washing, &c. The recess by the side of the chimney was enclosed as a cupboard by a door in the usual manner; against the inside of which I screwed a common wash-stand, having its legs cut short enough to pass over the wash-board of the room without throwing the basin too high for comfortable use. When the door is shut the washing apparatus is in the cupboard, but when the door is open the means of washing are in the room in a most convenient situation. This contrivance, and the sofa-bed together, afford the economist the uses of a bed-room without the appearance of one. — *John Isaac Hawkins, Civil Engineer. Hampstead Road, May* 22, 1835.

Art. II. *Domestic Notices.*

ENGLAND.

Opening Meeting of the Institute of British Architects. — The members of this Society held their Opening Meeting at their rooms, 43. King Street, Covent Garden, on June 15th, on which occasion they invited the attendance of the presidents and members of the various scientific bodies whose pursuits are at all analogous with theirs. In consequence the attendance was numerous, and we observed among those present the Duke of Somerset, Sir Martin A. Shee, P. R. A., Sir Edward Cust, Sir Henry Ellis, Sir Graves Haughton, the Hon. Thomas Liddell, the Hon. William Cust; Messrs. Vivian; Walker, P.C.E.; Wilkins, R.A.; Phillips, R.A.; Cockerell, A.R.A.; Deering, A.R.A.; Greenough, Capt. Pringle, Dr. N. C. Taylor, Professor Hoyen of Copenhagen; M. F. A. Bernhardt, a Saxon architect; and many other persons, distinguished friends of architecture. Earl de Grey, the President, took the chair at half-past eight o'clock, supported by Messrs. Robinson and Kay, Vice-Presidents, and by Messrs. Barry, Basevi, Benton, Kendall, Rhodes, and other members of the council. After the minutes of the last meeting had been read, His Lordship prefaced the business of the meeting with some introductory observations on the circumstances that gave rise to that assembly. "I believe," said His Lordship, "that every profession connected with the arts and sciences in this country has had something like an association amongst the members professing it, except architecture. Several friends of this science have attempted, at different times, to establish a Society for promoting it; but, essential as all feel and acknowledge it to be, whether versed in it as a science, or merely regarding it with the eye of an amateur, from some cause or other they have always failed. We have, however, now a more cheering prospect opening before us; and this Society is formed for the cultivation of an art which can only be duly understood and appreciated by those who make it their study. Under these circumstances, I have the pleasure of addressing you, and through you the public, who, I trust, will hold out a fostering hand to its support; and who will step forward with boldness and kindness to help us and to raise the Institution to that character which this country is competent to give it. We have amongst us this evening professors of this art and science from foreign countries, who only want opportunities of this sort to become better acquainted with us, and through them we shall become better acquainted with

their institutions. It is impossible to doubt that very great benefit must result to ourselves, and to the younger members of the profession, who may, by means of this Institution, have an opportunity of availing themselves of the experience of their elder brethren, with the advantage of that personal converse with each other, which is so much more valuable than the dogmas of a school, or the short-hand minutes of a lecture. If we only succeed in establishing this Institution on the broad ground and footing which I think we may, then we shall have an opportunity of deriving a greater acquaintance with the resources of the art. Having said thus much upon the Institution itself, I may, perhaps, be allowed to say a few words as respects myself, and the position I now occupy. I was asked to become the President of the Society by my friend on my right, Mr. Robinson; but I really did feel and and express myself sincerely, when I told him that I was incompetent to fill that office. I will add that I know nothing of architecture as a science; I acknowledge that I am fond of it, and that it is an amusement with me, and a subject of interest. I have dedicated a good deal of time and attention to it, but I know nothing whatever about it in a scientific point of view. The Institution may, perhaps, in some slight degree be benefited by my efforts; and since no one can doubt that my motives are perfectly disinterested, some little advantage may result from my associating myself with this Institution. On those considerations I certainly accepted the office, and I only hope that I may be able to fill it with effect. I can only add that at any period I shall be most happy to do all in my power to further the objects of this Institution, and to add my feeble efforts to promote so great and so magnificent a science as we must all acknowledge architecture to be.

Mr. Donaldson, the secretary, then read a paper explanatory of the views and objects of the Institute. After some preliminary remarks, he stated that the Institute now counted 80 Members, 50 Fellows of whom are architects of established practice in England. Every inducement will be held out to the junior class of members, by making such ample provision for general information and improvement as can be effected by the funds which the council may have under their control. Thus may the younger members of the profession be induced to look up to this Institute, composed as it is of the greater portion of the senior established architects in the United Kingdom, as a scientific body to which it must be alike honourable and advantageous to belong. Just eulogiums were passed on the two honorary members, Dr. Faraday and Mr. Britton, of whom it was observed that such were the names put foremost on the list of honorary members, and that the Institute owed it to them, as it owed to itself, that those who occupied in future the same position with them in the Society should be names equally honoured and respected in the field of science and literature. Allusion was made to the class of foreign and corresponding members, the list of whom contains the names of the most celebrated architects abroad. Much valuable information and instruction are expected to be derived from their communications: the professional objects of our architects travelling abroad will be facilitated by such intercourse; and again, their reception here by the members must produce a spirit of harmony and goodwill serviceable to architecture throughout the world. Communications have already been opened with various foreign academies, through the several embassies in London. The paper then went on to state the objects which the members had in view for the cultivation of architecture, both as a fine art and science. A library is forming, specimens of materials are being procured, models have been given, and, in fact, every thing is in due progress for establishing a museum. A paper of queries, containing the desiderata in every branch of architecture, has been drawn up, and, after revision by the members, it is to be distributed throughout the world. This paper is to contain questions as to edifices, in regard to their individual history, destination, size, distribution, and construction; precise information will be required on all sorts of materials and their application, the failures and remedies respecting which will offer a wide field of experience. Acoustics and lights will be also subjects of in-

vestigation. The literature of the art, its antiquities, biography, and education, are also included as proper for the attention of correspondents. These questions will be sent to foreign countries, and, as they will be translated into the various languages of Europe, it is hoped that they will find admission into the leading periodicals connected with science, and be diffused throughout the world. In the mean time, the council have determined to offer an honorary premium for an *Essay upon the Nature and Properties of Concrete*, for which all persons are invited to compete. Brief notices were taken of Messrs. Lee, Parker, and Nash, who had died since the formation of the Institute, and their several merits as architects were justly dwelt upon. The secretary concluded by an appeal to the public at large, and to the nobility, gentry, men of science, and members of the profession, to foster an Institution so essential to the due cultivation of a branch of art and science upon which so much of the comforts, elegancies, and, in fact, of the happiness, of every individual depends.

The list of benefactors was then read by Mr. Goldicutt, the junior secretary, and communications from contributors since the previous meeting of the Society. From Mr. Bellamy, 10*l.*, Mr. Newman, 11*l.* 11*s.* as a fund for travelling students. From Mr. Britton, several books and two interesting drawings of a design for a triumphal bridge, by the late Paul Sandby. From Mr. Noble, a most valuable collection of books and prints, and 5*l.* to be laid out in any modern publication; and from Mr. Barry, 20*l.* for books. A vote of thanks was passed to all these gentlemen.

The President then communicated to the meeting that he had a most gratifying letter to read from Sir John Soane, who had not only distinguished himself as an eminent architect, but as a munificent promoter of the art of which he had been so exalted a member. It was to announce a donation of 750*l.* in his own name, and in that of his grandson, John Soane, Esq., to the general purposes of the Institute. The noble President himself proposed a motion for a vote of grateful acknowledgment to Sir John Soane, which was carried by acclamation, and a special meeting was ordered to be convened for Monday next, with the view of taking into consideration the mode in which the noble gift should be appropriated. After the meetings for the remainder of the season had been declared, as well as the subjects to be discussed thereat, thanks were voted to Mr. Donaldson, the secretary, for his zealous labours in the formation of the Institute; and Mr. Robinson, V.P., who sat on the right of the President, returned, in the names of the members then present, their acknowledgments for the honour which their noble President had done them, not only in having given his countenance to the Institution by accepting the office of President and presiding on that occasion, but by his contribution of 50*l.* towards its general purposes.

The whole evening passed off most satisfactorily to all present, and we doubt not that this Institution will fill an important station among the scientific societies of this metropolis, and, in fact, of Europe in general; its progress being distinguished by the greatest caution, and its objects embracing every practical point which can benefit architecture, whether as a fine art or science. — *T. June* 18. 1835.

Rebuilding of the Houses of Parliament. — From the report of the committee on this subject, read in the House of Commons, June 3d, and published in the *Morning Chronicle*, June 5th, we make the following extract; premising that we think the resolutions do honour to the committee, and indicate the dawn of a more liberal and impartial manner of acting in matters of this kind, on the part of government:—

"Resolved,

"That it is expedient that the designs for the rebuilding of the Houses of Parliament be left open to general competition.

"That the style of the buildings be either Gothic or Elizabethan.

"That a lithographic plan be made of Westminster Hall, and of the premises adjoining, showing the entire area to be occupied by the intended

new buildings, and including the space to be gained by the intended embankment of the river.

"That, with the lithographic plan, there be given a specification of the general accommodation required, &c.

"That all designs be executed on one and the same scale, viz., of 20 feet to an inch, and that no coloured drawing of any kind be received, nor any perspective ones, save such as shall be taken from situations selected, and specified on the lithographic plan to be delivered to the parties, and no models be accepted.

"That all persons wishing to send in plans for the rebuilding of the two Houses of Parliament shall, on application to the Office of the Woods and Works Department, in Whitehall Place, be furnished, on the payment of 1*l.*, with a copy of these resolutions, and other matters.

"That the plans shall be delivered into the Office of the Woods and Buildings, at Whitehall, on or before the first day of November next.

"That, in order more effectually to secure a correct decision upon the merits of the several plans, it is expedient that an humble address be presented to His Majesty, requesting him to appoint five Commissioners to examine and report generally to both Houses of Parliament upon the plans offered by competition; and that such commissioners shall select and classify such of the plans, being not less than three, or more than five in number, as shall seem to them most worthy of attention; and shall state, if required, the grounds upon which the propriety of such selection and classification is founded.

"That, in order to save any unnecessary delay in procuring the plans, or unnecessary trouble and expense to the parties furnishing them, it shall not be required that any estimate shall accompany a design; and should an estimate be required, any party called upon to furnish it shall receive compensation should his plan be ultimately rejected.

"That a premium of 500*l.* be given to each of the parties whose plans shall be recommended by the Commissioners, and shall be considered by them as worthy of the reward; that the successful competitor shall not be considered as having necessarily a claim to be entrusted with the execution of the work; but, if not so employed, he shall receive an additional reward of 1000*l.*"

Lectures on Castles and Castellated Architecture have lately been given by Mr. Britton to crowded audiences at the Mary-le-bone Institution, at the west end of the town; and on *Indian*, *Egyptian*, *Grecian*, and *Roman Architecture*, at the London Mechanics' Institution. Accompanied, as they are, by numerous large and fine drawings, and replete with varied description, history, and criticism, these lectures are calculated to afford much useful information to popular, and mixed audiences; and, when we reflect how little has been done by the professors of architecture, and even by those who have been honoured by that title in the Royal Academy, we are persuaded that Mr. Britton will effect much good, and we trust that he may be tempted to repeat his lectures in various parts of the country.

We are enabled to give the following extract from his first discourse at the Mechanics' Institution, which will afford a specimen of the author's style and sentiments:—

"The *architectural antiquities* of nations are so many permanent records of their respective histories: they are indexes and memorials of the arts, the religious and civil customs, the habits and manners of man in different ages of the world, in varied and progressive stages of civilisation and refinement: hence they serve at once 'to point a moral and adorn a history.' Surely such a subject is worthy of the diligent study of the scholar and the antiquary; of the man of science, and, indeed, of every man who possesses rational curiosity, and who wishes to improve his own taste and judgment by examining the best works of his ancestors."

"'*Knowledge is power*,' says Lord Bacon; and, as His Lordship possessed a large share of the one, we are entitled to conclude that he had a fair portion of the other. We may also say that knowledge is dignity — is virtue — is

synonymous with wisdom. And what is ignorance, the opposite to knowledge? It is folly, vice, stupidity, disgusting and degraded humanity. It is a murky, filthy, dismal *cave*, — where the sun of science never entered — where every thing is repulsive and offensive — where the sounds of harmony, intelligence, and good sense were never heard — but where, on the contrary, all that is vulgar and irrational are uttered in discordant tones and inhuman voices.

"Knowledge is the 'cloud-capt' mountain, whose summit man never reached — whose numerous paths of ascent are devious but inviting — whose many terraces and promontories serve at once for places of rest and prospect. It is adorned with temples of all the sciences; theatres for all the arts; palaces for all intellectual excellence. In proportion as man advances towards its apex, his vision is improved in keenness and compass, his faculties expand, and he looks around with intense admiration and pleasure on the numerous glories of nature; the countless objects of scientific research, of enquiry, of interest and utility to the human race. It is said that 'the wise men of the east,' the Egyptians of the old world, and the Greeks and other nations of antiquity, had ascended high up this mountain; but, whatever may have been their discoveries, few of them have been imparted to us, in consequence of the want of printing. In our own age and our own country we can speak with more confidence and more precision of the geographical features and characteristics of this imaginary mountain. Although we cannot expect to reach its top by steam-engines or balloons, we may be assured that the literary, scientific, and mechanics' institutions of the country will cooperate to make its ascent, from every side, more easy, and the varied prospects it commands more extensive and more fascinating."

Architectural Drawings in the Exhibition at Somerset House.—This department of the exhibition is by no means equal to what it has been many other seasons. Nearly all those who have been wont to contribute toward its chief attractions have declined sending any drawings this year; nor is their absence supplied by the appearance of any fresh accession of talent. There is not a single subject by Gandy Deering, Barry, Robinson, Papworth, Cockerell, Parke*, Blore, Cottingham, Salvin, &c.; while others, whose names are to be found in the catalogue, are far from distinguishing themselves by the drawings they exhibit. Vulliamy, who, for the last two or three seasons, has sent some large and well executed drawings, has only a very puny and insignificant one of his church in Woburn Square (954.); and Wilkins contents himself with showing a sketch of a design by him for the York Column (984.); and another of the National Gallery (1031.). The latter is upon so small a scale as to be hardly more satisfactory than some of the wood engravings published of it. Our astonishment was, therefore, as great as our disappointment; for it might naturally have been expected that, every thing considered, the architect would have been anxious to display the building to the utmost possible advantage, setting it off by all the pictorial aid of colour, picturesque perspective, and light and shade; and moreover bestowed on it some importance in respect to size. Neither would it have been amiss had he condescended to let the public see what he is about to do in the interior, and to judge how far the future exhibition-rooms are likely to surpass the present ones at Somerset House. Some drawings, or even a drawing, of the latter description, would have been the more acceptable, because there is this year hardly a single interior in the architectural room. There are, indeed, two in the adjoining one, which is set apart as the receptacle for a most multifarious and chaotic assemblage of subjects. Why they should be put aside there, as if not sufficiently good company for the other architectural pieces, or as if even unfit to be seen at all, — so well are they put out of sight, we can hardly guess. Allen's "Restoration of the interior of the ancient banqueting hall of the Artillery Company" (750.) is placed in a dark corner, next the floor, in one of the recesses which

* This gentleman, whom we regret to say the arts have now lost (he died May 5th, in his 43d year), has three paintings in the exhibition.

are continually crowded by persons peeping at the miniatures; it is, therefore, impossible to judge what it is. Nor is Hassell's "Boudoir in the residence of Gen. Sir J. Macdonald" so hung as to allow us to enjoy it.

The only other interior we observed is a restoration of part of a saloon in the Alhambra, looking towards the Court of the Lions (967.), by O. Jones; who is, we believe, quite a new exhibitor, and, judging both from this piece and No. 1033., "Ruins of the Great Temple at Karnack," we hail him with pleasure as one who is likely to prove a very great acquisition. We do not like him at all the worse because he seems to have a taste for subjects that luxuriate in pomp of colour. In this respect his Alhambra is gorgeous without being glaring, and, indeed, without the addition of colours, it is impossible completely to estimate the peculiar character of the Moorish style.

Sir John Soane exhibits only "An Architectural Sketch" (975.), part of a Gothic exterior, which manifests more sobriety, with not at all less fancy, than many of his former productions. We anticipated that the fire which happened last October would have communicated some warmth to our architects' imaginations, and have been succeeded by a deluge of designs for new Houses of Parliament; instead of which there are only two drawings of the kind, Gandy's "Sketch for new Senate Houses" (946.), and Tatham's project for the same purpose (985.). The former is a most flaming affair, and is altogether so extravagant, that its author seems to have been more anxious to furnish a certain, yet not humiliating, reason for its rejection *in toto*, than to bring forward an idea whose feasibility would recommend it to attention. Mr. G. is apt to run riot upon such occasions, and that, too, somewhat in the "Ercles' vein," being frequently as chimerical as he is imaginative. Mr. Tatham, on the contrary, can by no means be charged with having erred through excess of imagination; for his idea consists merely in converting Inigo Jones's building at Whitehall into a House of Lords, and erecting a centre building and corresponding wing for the House of Commons, &c.; consequently all that is his own is the connecting part, which offers nothing remarkable. Although such extension of the present building would give it that continuity and completeness which it now evidently wants (for, being insulated, it looks rather abrupt and short), and would so far produce an imposing façade in that style, we should hardly recommend it as of suitable character for a senate house.

In "Prior Park, Bath," (913.) there is a very unusual degree of architectural display and grouping, and the intended church, rearing itself up immediately behind the palace-like mansion, will produce a very showy effect; but what college these extensive buildings are intended to form, we have not heard; most probably it is some Roman Catholic institution. The next, No. (914.), "River front of the Hotel about to be erected at the new town of Rosherville, Northfleet, Kent," is creditable to Mr. Kendall, as possessing both novelty and propriety, a considerable degree of effect and satisfactory consistency of style, without extraordinary embellishment.

But the subject that most engaged our attention, as one of the happiest designs in the room, is No. 929., "High Cliffe, Hants, a seat of the Right Hon. Lord Stuart de Rothesay, now erecting. W. J. Donthorne." A finer and more able appropriation of the latest species of Gothic to the purposes of a modern residence, we do not remember to have ever before beheld. It possesses strong picturesque quality, without quaintness; and irregularity, without incoherence, and without the intervention of insignificant parts or features by way of giving importance to the rest. There is nothing of either the ecclesiastical or the castellated style in this composition: it does not at all remind us in any degree of the true "Tunbridge-ware" school of Gothic, as it has not inaptly been termed. The whole is bold and rich; and the architect appears to have judiciously availed himself of some peculiarities in the Continental styles. We congratulate Mr. Donthorne on the very superior taste this design manifests; and also congratulate Lord Stuart de Rothesay as the future possessor of so piquant and *recherché* a piece of architecture as this

mansion promises to be. No. 974., by the same artist ("Bure Homage," also in Hants), is in altogether a different style; nor is it marked by any of the attractive quality that recommends the preceding.

No. 930., "Perspective view of a Design for a Villa" has considerable merit; and offers a very pleasing singularity in the portico. On looking over the catalogue again, we observe there are several other things which seem to promise some interest as far as their titles go; but either they had no attraction in themselves, and we accordingly passed them without stopping to ascertain what were the subjects, or else they are hung where they cannot be viewed, save only by Lilliputians, on whose level they would be; or by those approaching the stature of Brobdignagians. We trust that this truly preposterous mode of *stowing* away pictures and drawings is now nearly over, and that, in the room to be appropriated to architectural designs in the new building in Trafalgar Square, there will be no more than a single line of large frames, or two of small ones, along the walls. Such works require to be submitted to as close inspection as engravings; and were no more taken in than could be hung so as to be distinctly viewed, the character of this portion of the exhibition would be greatly improved, as it would, of course, become more select, while, at the same time, all that it contained could be fairly seen and fully enjoyed: the very reverse of which is now the case, for a more heterogeneous mixture could hardly be contrived; a sort of "awkward squad" of portraits and other oil pictures, and nondescript subjects, being hung up with the architectural drawings.

Among the models, in the council room, we were best pleased with No. 305., "The Town Hall and Markets, Penzance," H. J. Whitting; No. 306., "The Receiving House, Hyde Park," J. B. Bunning; and that of the "Indigent Blind School" (307.); although the last is on rather too minute a scale, and not very advantageously placed, the front being turned from the light. In our opinion it would be an improvement, were the glaring whiteness of these plaster models subdued; and were there some little indication of local colouring given to them, when, as is the case with the last-mentioned subject, the building is constructed of stone and brick. — *H.*

Cambridgeshire. — A Well has been dug and bored on the green of the village of Waterbeach. "It was first dug 14 ft. deep, and then bricked, and the land-springs kept out by puddling the outside of the brickwork with gault. The operators then commenced boring, and got a copious supply of good soft water between 90 ft. and 100 ft. from the surface. The well is piped with tin pipes, and a pump is put down. Every one of the neighbours that I have spoken with on the subject says it is the best thing that was ever done for the parish; as every one residing in it can be now supplied with wholesome water. The well has been sunk by subscription. The estimated amount was 20*l.*, and I do not think it has exceeded it. The soil the well-sinkers went through was, 1st, vegetable soil; 2d, sandy clay; 3d, pure clay; 4th, gault, to a great depth; and, 5th and last, rock or stone, which they had to work through with the chisel." — *J. Denson, sen. Waterbeach, near Cambridge, Feb.* 25. 1835.

It may be useful to state that all the wells and pumps in the village ("parish") are supplied from land-springs, except a few, two or three of whose proprietors have had deeper wells bored. Soft water, usable for washing linen, is supplied from these, and neighbours can avail themselves of it by paying a trifling periodical acknowledgment. The well now provided on the Village Green is available to all, without any payment but the first one for providing it. At Kensall Green, and at Kilburn, the springs are mainly land ones, and in seasons of drought water has to be bought dearly of the few who possess bottom springs. — *J. Denson, jun. Bayswater, March* 1. 1835.

Devonshire. — It will, perhaps, surprise some of your readers to learn, that in some parts of Devonshire that useful and sightly material, Portland stone, is subject to the daubings of the painter; the reasons given for which are, that it is done to prevent both the stone from becoming covered with vegetation, and its partial decay, or eating out, as it is termed, into cavities! The

first of these is easily cured, and the other, as far as my experience goes, occurs only in inferior specimens, or after a great lapse of time; neither, however, even in the worst cases, can sanction a disguise that destroys its beauty as a superior material to plaster or wood. Some of your correspondents may be able to afford more convincing arguments than I have against the practice. — *Architectus. April* 13. 1835.

Glamorganshire. — The foundation stone of *the Glamorgan and Monmouthshire Infirmary*, which is to be erected at Cardiff, was laid last week, by Daniel Jones, Esq., of Llantwit, to whom the compliment was awarded for his munificent donation of upwards of 2000*l.* to the Institution. (*Worcester Herald*, May 2. 1835.)

Lancashire. — *Preston, March* 2. — Such a publication as your *Arch. Magazine* has long been wanted, and I have no doubt it will be of great service to many amateurs, whose taste may lead them to the cultivation of the science of architecture, as well as to the purely professional man, to whom it will afford an opportunity of giving and receiving, through your correspondence department, much useful and valuable information. I live in a town which I believe is more rapidly on the increase than any other of the same class in the kingdom; and which, from its numerous local advantages, coupled with the spirit of enterprise and improvement which has been, for some time, manifested by many of its inhabitants, I have no doubt will soon become a place of considerable importance, not only as a flourishing manufacturing and commercial town, but for its architectural beauty. I look forward with the hope that, while it increases in size and opulence, its buildings may not disgrace the natural beauty of its situation and its original boasted appearance, before it became, as it has only recently done, one of the seats of extensive manufactures. In all towns such as this, there is generally much cause to lament a want of taste in the style of the buildings. In manufacturing towns the inhabitants are too much inclined to look merely to utility, without paying much attention to appearance; but in the erection of a dwelling-house, however humble it may be, or even in building a manufactory, if the general style can be improved without much increase of expense, surely some attention ought to be paid to the attainment of so desirable an object. In most manufacturing towns the labouring classes are much disposed to have a dwelling-house, however small, for each family; and I am strongly inclined to encourage that feeling of independence that induces this desire: it is certainly much better than that six or eight families should have lodgings in one large house. This system, I mean that of having separate dwellings, which is here generally adopted, is, however, in some degree, a drawback on the appearance of the towns where it is acted upon; for the number of cottages necessarily bears too great a proportion to that of the larger houses. It is, therefore, of great importance, in order that the comfort of all classes may be promoted, that the cottages should be as commodious in their internal arrangement, and as neat and correct in their external form, as possible. With this view I should feel obliged, and at the same time you would confer a benefit on all such towns as ours, if either you or any of your correspondents would throw out some hints for the erection of dwellings of the description I have mentioned. They are here generally built in rows or streets, of from ten to forty together, costing from 80*l.* to 140*l.*; and they are so perfectly monotonous in their appearance, that after seeing one of them you have a fair sample of the whole. It is, indeed, no uncommon thing for a person to contract for the building of thirty or forty such houses, without having any thing on paper in the shape of a plan, it being only understood that they should be exactly similar to those of Mr. So-and-so in the next street; and, therefore, it is evident that we are in a fair way of perpetuating what I believe you would, were you here, say was a bad style, unless some new ideas on this subject be given to us.

The Park, which our corporation here is forming for the use and recreation of the public, consists of more than 200 acres of excellent land, possessing many capabilities, and having an abundant supply of water, and an undulating

surface. It is being partially planted and laid out in wide avenues and extensive drives and walks, and it is intended that it shall be surrounded by ornamental detached villas. Subscriptions are also in progress to erect, on an elevated part of this park, a handsome monumental pillar, commemorative of the character of our revered townsman, the late John Horrocks, Esq., M.P. for this borough. This will be appropriate and proper, for he possessed a mind so exalted and comprehensive, that any monumental honours conferred upon his memory would be ill placed in any fabric of man. A lofty Doric column, placed in open space, will, therefore, best promote the intentions of the numerous friends he left behind him, many of whom yet survive, and now wish to honour his name.

A Cemetery, on an extensive and handsome scale, on part of the same ground, is also spoken of, which may be made to add much to its appearance, and is now wanted in Preston. Of these improvements, and also of the North Union Railway, Viaduct, and Bridge of five arches, each 120 ft. in span, over the Ribble and its beautiful valley, the whole extending three quarters of a mile, I hope to be the means of giving you some information as they proceed; and shall be glad to see in your Magazine any hints regarding them, either from you or any of your talented friends or correspondents.—*William Taylor.*

Liverpool. — A building on a very extensive scale is about to be erected in Mount Street, Liverpool, for the purposes of the Mechanics' Institution. The funds for this purpose have been some time accumulating; and the committee, about three months ago, advertised for competition plans. Sixteen sets of designs were sent in, from which the committee selected those of Mr. A. H. Holme, the late Mr. Wm. Alderson, and Mr. J. A. Picton. To the latter gentleman has been entrusted the task of combining and arranging these plans, and carrying them into execution. The building, when finished, will be the largest and most complete, for the purposes for which it is erected, of any in the kingdom. The cost, when completed, including the land, will be about 10,000*l.* The Liverpool Mechanics' Institution affords a striking instance of what may be effected by individual energy and perseverance. A very few years ago this Institution, which was established in 1825, was in a sinking state; the funds in an extremely low condition, the number of members not more than three hundred, and the whole affair seemed likely to expire from mere exhaustion. From this state it has been raised by the (originally) almost unaided energies of two successive honorary secretaries, John Leyland, and J. S. Radcliffe, Esqrs., who have spared no sacrifices of either time, labour, money, or influence. By their exertions, the public attention has been awakened to its advantages, influential individuals have lent a helping hand, the number of members has been augmented to about twelve hundred, and a height of usefulness and prosperity has been attained, equal, if not superior, to any similar institution in the country; and all this, too, in the face of the direct opposition of some, and the lukewarmness of others, who seem to dread the diffusion of knowledge as they would the plague. Several most handsome donations have recently been presented to the building fund, amongst which may be more particularly noticed two of 500*l.* each, from R. V. Yates, and Jas. Mulleneux, Esqrs. — *P. Liverpool, May* 16. 1835.

Norfolk. — *Norwich, May* 2. 1835. — I remember being particularly pleased with the article by Scrutator, in your first Number, p. 12. A case in the same line has recently occurred here. One of the sub-contractors of a building (the plasterer) conceived that some of his work was not included in the plans and specifications; upon which he delivered in a bill of extras to the general contractor. After some delay it was left to reference, and "custom, all powerful custom," was the plea. The architect described the cornices to be 12 in. in girt in the specification; and they were shown half size in a drawing. The architect conceived the proper way of measuring them to be by applying the compasses to the sides at right angles, as if he were measuring a scantling; but the "custom" is to pass a string over the whole of the mouldings, in the waypainters' work is measured, and equitably so. It would have been better

to have referred to drawings, but it does not always happen that working drawings can be completed in time to append to the contract. The referee went at once to the point, considering that sub-contractors were bound to submit to the same terms as the general contractor; in addition to which the plans particularly exhibited the cornices; and the general saving clause in the specification completely precluded any charge for extras being made by the general contractor, unless such extra works were ordered afterwards in writing. It ought to be observed, the general contractor put down the works of the other artificers in his tender at the same price as they gave in, so that, if he had been cast, it would have been a total loss to him. The referee in this case was Mr. Carniel Darkins of this city, and it is but common justice to admit that he acted with great prudence; it is, perhaps, the first instance in this district where "custom" was so completely defied. As a conclusion, I would advise all parties to be very cautious in making out estimates, taking care to satisfy themselves on every point; and if they make up their minds to risk something in competition in order to obtain the job, let it be a certain sum of money, not an uncertain quantity of work. — *W. T.*

Northumberland. — The Newcastle and Carlisle railway was opened on the 9th of March, by a procession of carriages drawn by locomotive engines, which proceeded towards Hexham at an average rate of from twelve to fourteen miles an hour. The ease and rapidity of the conveyance afforded the greatest pleasure to the numerous and delighted visiters, and a triumphal arch, and an immense assemblage of people, welcomed the procession at Hexham.

The railway is itself a pleasing object, the slopes of the cuttings and embankments being finished in a firm substantial manner, and the grass-grown sides being as beautiful to the eye as they are essential to the solid retention of the earthwork. The vale of Tyne, through which the railway passes, is one continual panorama of beautiful and romantic scenery: spacious green *haughs* or *holmes* spread out in the hollow of the valley, overlooked by hanging woods and lofty banks, while cheerful villages, and various other objects, impart a delightful aspect. The spire of Ryton, the ivy-mantled walls of Prudhoe, the noble tower of Bywell, the seat of T. W. Beaumont, Esq., M.P., and the melancholy and deserted ruins of Dilston, pass like a fleeting vision, and leave behind them day-dreams of every charm that historical association and landscape beauty can impart.

The act for this railway was obtained in May, 1829; the arrangements for passing through the land of various proprietors occupied nearly the whole of the following year; the works at the western end of the line were begun in September, 1830; but the eastern part, now opened, was not commenced until February, 1831. The care with which these preliminary arrangements were made had the happy result of preventing the more serious and expensive delays which litigation and disputes have so often occasioned in similar undertakings, and the works have since proceeded as rapidly as the nature of the district and the funds of the company admit. The earthwork of that portion of the line now opened has thus become firmly consolidated, and the masonry and other works are constructed in so firm and durable a manner as must greatly conduce to the permanent interests of the railway. The ascent from Blaydon to Hexham is of very moderate inclination, seldom exceeding 3 ft. or 4 ft. in a mile, and opens a communication between a populous agricultural and mining district and the river Tyne, which communication will, ere long, be extended to the western sea.

This line of railway is double the length of the Liverpool and Manchester line, and will be completed for little more than half the cost of that railway, being, in point of economy, an advantage of nearly 400 per cent. The works were commenced under the direction of Mr. Giles, who is yet the consulting engineer of the company, the engineering department having latterly devolved on Mr. Blacknore, whose able and active superintendence has greatly contributed to the successful termination of the work. The eminent services of Benjamin

Thompson, Nicholas Wood, and George Johnson, Esqrs., who form the committee of management, have also been zealously employed in conducting this great undertaking; and the skill and experience of these gentlemen are at once a safeguard of the interests of the shareholders and of the public.

As regards this town, the opening of this important communication is an event of the greatest interest to all who are concerned in its commerce. No town in England is more happily situated than Newcastle for the centre of a manufacturing district. Coals, iron, lead, limestone, and other minerals, are found in rich profusion throughout the district. The agriculture of Northumberland is famed throughout the kingdom, and the tonnage of the Tyne already ranks second only to that of the Thames. A communication between two populous towns, uniting two seas, and leading through a country so rich in its resources, cannot fail to prove one of the most satisfactory speculations ever undertaken in this part of the kingdom. A city of palaces is rapidly rising within the very walls of Newcastle, and we trust that increasing trade and commerce will amply reward the spirited projectors both of the railway and of the other public improvements of the town and district, and that Newcastle will long remain the capital, and the river Tyne the metropolitan harbour, of the north. (*Newcastle Courant*, March 14.)

Yorkshire. — I have been for some months endeavouring to get up an architectural society in ————, for the improvement of architectural science and practical knowledge, and for the mutual advantage of the members of the profession. The thing has been talked about and met with the approval of most of the architects in the town; but, as usual, what is everybody's business turns out to be nobody's, and I suppose, if I do not exert myself to an extent which some may deem impertinent and officious, the scheme will never see the light. The architects and surveyors in ————, like Washington Irving's "money-diggers," seem to have but one idea — that of getting all they can; whether they deserve it or not, is a question which seldom troubles them. The incubus of corporate monopoly presses like the nightmare upon the development of architectural talent in any of our public buildings; but this, it is to be hoped, before long, will be put upon a footing more in accordance with the spirit of the age. — *P. A. L.*

SCOTLAND.

Edinburgh Royal Institution. — There are two operations going on here at present which may possess some interest for you. The one is the conversion of the heavy Doric building, which you may recollect seeing on the earthen mound, into one of the most beautiful Greek temples in Britain. I send you two engravings of it in its original state, and a little vignette, which was engraved for the admission ticket at our late scientific meeting. [*Fig.* 163. is the

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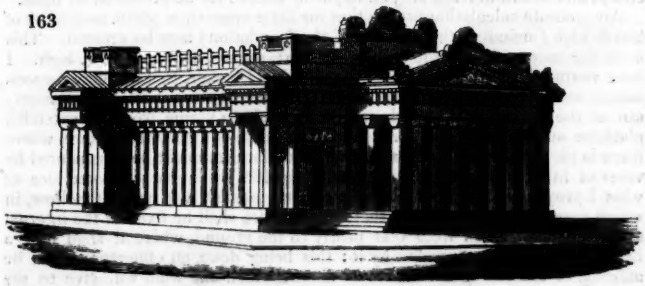

entrance front of the Royal Institution, as seen from Hanover Street, in the New Town; and *fig.* 164. the opposite front, looking from the Old Town, as

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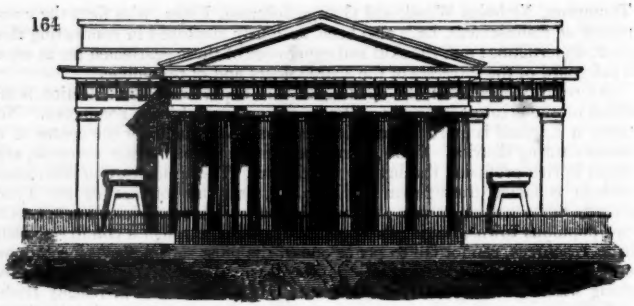
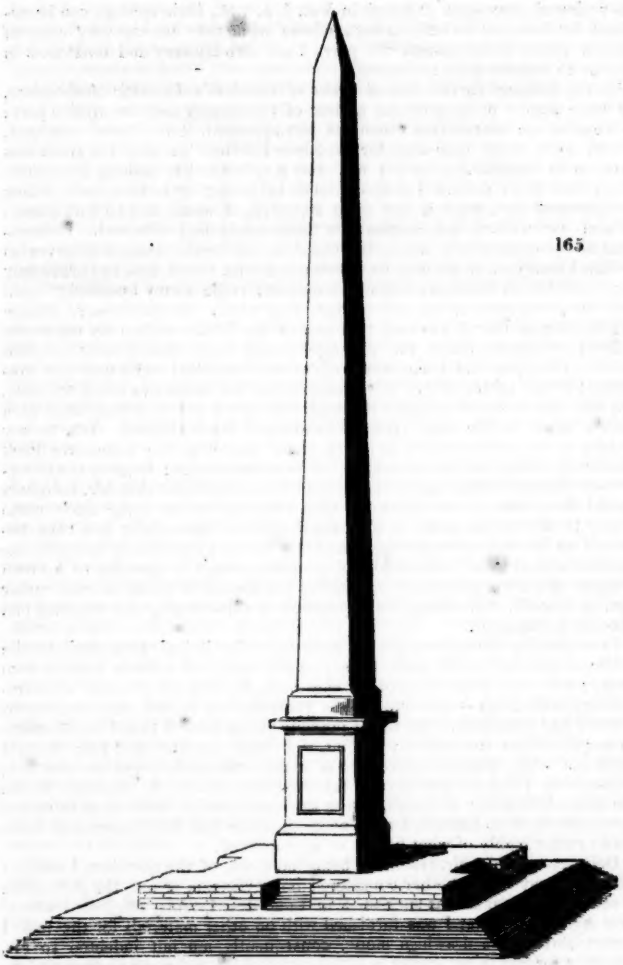


the building is now altering.] I shall be glad to learn your opinion of the propriety of the changes. You will observe that in the original plan the deep solid parapet (the building being really of two stories, though apparently of one), rested on the columns, which, though Doric, seemed overloaded with the mass. In the new arrangement, the parapet is transferred to the wall in which the windows are pierced, and the intervening space is covered by a sloping roof. Another change, which is, perhaps, not so happy, is the introduction of the four projections near the angles of the building. They certainly look pleasing enough to the eye, yet one cannot help asking one's self, why are these (apparently) subsidiary entrances required so close to the main ones? The north portico (*fig.* 163.) is one of the finest things of the kind I ever saw, and the south one is hardly inferior. The whole will be complete in May.

The other novelty is *the projected monument to Sir Walter Scott*, for which many designs have been offered, such as Norman crosses, Gothic chapels, and cast-iron baldaquinos [from *baldachino*, Ital., a building in the form of a canopy], all very pretty in their way, on paper, or in a smiling country village, where they would be seen in contrast with small rustic buildings and natural verdure; but which would be apt to look insignificant when brought into competition with the great masses of building to which the eye is accustomed in Edinburgh, from the peculiarity of its situation and construction. A plan of a different kind has long been advocated by some persons here, who argue, that, considering the limited amount of the funds at the disposal of the committee, and the nature of the situation, it is impossible to produce a monument of any effect if fine workmanship be bestowed on the details; and that, without seeking for other reasons, these circumstances make the adoption of some construction necessary, in which, by taking advantage of our plentiful, cheap, and beautiful freestone, an imposing effect may be produced by mass.

An accurate calculation proves that for little more than 5000*l.* an obelisk of 200 ft. high (including the expense of the foundation) may be erected. This is on the supposition of the base being 20 ft. square, and near 40 ft. high. I have ventured to suggest to the architect, Mr. Playfair, that as many persons have a feeling that an obelisk appears ungraceful, because it rises too abruptly out of the ground, this obelisk should be made to spring from an extended platform and terrace to be formed in the middle of Charlotte Square, where there is plenty of space for it, and where the platform might be ornamented by vases of living plants, &c. The sketch (*fig.* 165.) will give you some idea of what I propose. If this plan be adopted, the obelisk will be built hollow, in which case I intend to propose that a copper wire shall be fixed in the internal apex, and shall reach from that nearly to the ground, where it shall have a heavy metallic ball suspended by it: this being done, an opportunity will be afforded of measuring the degree of flexure which the wind will give to the shaft, as the deviation of the pendulum from the axis of the pedestal will show the quantity of displacement at top. — *R. Edinburgh, Feb.* 2. 1835.



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Art. III. *Retrospective Criticism.*

Goodwin's Domestic Architecture (see Vol. I. p. 132.). — It is not as a correspondent of the *Architectural Magazine* that I ask you to allow me to avail myself of its pages on the present occasion, since I am willing to believe they would be open to me, under the same circumstances, were I an utter stranger. The matter itself, indeed, is rather beyond the professed scope of your journal, still, as it relates to an architectural publication, and to one, moreover, that

was reviewed somewhat at length in Vol. I. p. 132., little apology can be required for bringing it before your readers; while they are the very class of persons whose good opinion the party I tax with trickery and unfairness is anxious to engross quite to himself.

On the titlepage to the *Second Series of Goodwin's Domestic Architecture*, my name stands as that of the author of the literary and descriptive part; whereas, in the new edition which has just appeared, it has been expunged. When, some short time ago, Mr. Goodwin informed me that the work was about to be republished, he did not utter a syllable as to making alterations of any kind in it; nor did I caution him as to letting my name remain, taking it for granted that, since it had once appeared, it would not be withdrawn; certainly not without my concurrence being asked and obtained. Unhandsome as the manner is in which Mr. Goodwin has herein acted, it deserves to be called manly plain dealing, when compared with the trick he had previously condescended to resort to, but which did not come to my knowledge until after the publication of the new edition of his work. It was by mere chance I then detected that it was only to a part of the former edition my name was suffered to appear, either the titlepage having been altered after a certain number of copies had been struck off, or else cancelled and a new one substituted in lieu of the first. It is probable that the latter was really the case, and that Mr. Goodwin adopted this ingenious manœuvre in consequence of a remark made in the very critique to which I have alluded. Yet, to say nothing of its unwarrantable and disgraceful meanness, the manœuvre itself showed any thing but the generalship of an able tactician; because the letterpress to the first series was such mere *vox et præterea nihil*, that Mr. Goodwin should have been more solicitous than reluctant to let some one's name appear to the second series, as a pledge that rather more pains had been bestowed on its descriptive portion; and also because the tone of many of the remarks is such as no man could, with propriety, adopt in speaking of his own designs, and consequently, by concealing the author of them, he was rather injuring himself, and risking the imputation of self-conceit, and extreme bad taste in displaying it.

In attributing the suppression of my name, after it had gone forth to the public, to jealousy on his part, I may, myself, seem not entirely exempt from vanity; yet I know not what other cause can be assigned for such an extraordinary proceeding — and one no less short-sighted, withal, than contrary to practice and precedent. He might possibly flatter himself that I should make no enquiry about the matter; or that, if I found out what had been done, I might not easily find an opportunity of making the world acquainted with it; or else, that I should give myself no trouble about it. It certainly is not worth much trouble; although, by the singular pains he has been at to secure the credit of it to himself, I must needs presume that Mr. Goodwin at least thinks rather highly of what he has so appropriated.

Delicacy towards Mr. Goodwin being now out of the question, I may be allowed to say that, whether considered improvements or not, the alterations in several of the plans, as suggested in their descriptions, originated wholly with myself; and that I was furnished with no other materials for the task I undertook than the drawings alone, consequently am not indebted to Mr. Goodwin for any thing, except a little matter-of-fact information in regard to the buildings he had actually executed.

I now leave him to congratulate himself on the success of his notable artifices and underhand manœuvres; which, if not worth exposing for their importance as they affect either of us, still, I think, ought not to be let pass with impunity.— *W. H. Leeds. London, June* 4. 1835.

Forsyth's Architectural Opinions: Candidus, in Reply to Verus (see p. 243.). — It is rather with the view of showing your other readers that I am not in any wise staggered by Verus's comments, than with the hope of convincing him he is at all in the wrong, that I take up my pen to reply to his animadversions.

As a vindicator of Palladio, I do not think he has greatly benefited the

cause he has espoused; for, while he admits that "many and serious defects are fairly to be ascribed to the Palladian system," he has not pointed out any one of those merits which he would have us believe more than counterbalance them. Surely it would have been somewhat to the purpose, had he opposed to my list of gross solecisms and deformities a corresponding one of the particular beauties and elegances which stamp the works of the great Vicentine master. Instead of which, all that he can directly advance in his favour amounts to no more than that "the common consent of ages, and the best reason of modern times, have pronounced many of Palladio's works to be admirable." Yet, in order to estimate the value of the testimony they have given in favour of Palladio, it is not quite irrelevant to ask ourselves what "ages" those were. Now, it awkwardly happens that, among them, we must place the times when persons were so utterly blind to the elements of architectural beauty as to be unable to discern any æsthetic merit, any taste in Gothic edifices, which they were pleased to decry as barbarous, monkish, and gloomy. Neither can I avoid suspecting that one great cause wherefore Palladio has been so highly estimated, is as much owing to the preposterous absurdities perpetrated by other Italian architects in the succeeding century, as to his positive excellence. Surely Verus cannot pretend to say that his reputation stands as firmly as ever it did, now that the study of both Grecian and Gothic architecture has opened to us different views of the art from those entertained during the period comprehended by the "ages" to which he refers us.

Most certain it is, that admiration of Palladio now very seldom goes to the length of imitation; while it is undeniable, that several later writers have not spoken of him in terms expressive either of particular reverence for him, or approbation of his style. Mr. Hosking, for one, shows himself, in his *Treatise on Architecture*, to be hardly more favourably disposed to Palladio than I myself am. He goes so far as to say that he "clearly did not appreciate" the classic models which he drew; and that his works abound with "blemishes too numerous and too great to be passed over, because of occasional elegance of proportion and beauty of detail;" though, for my own part, I am at a loss to conceive what beauty of detail is to be gathered from his buildings. On the other hand, it strikes me as rather a stretch of veracity on the part of Verus, when, with the extract from Legrand before his eyes, he asserts that every one has been "silent on the architectural merit of the doge's palace." Neither can silence be reckoned conclusive in disparagement of it, it belonging to a class of buildings which, until of comparatively late years, attracted no notice from either professional architects or travellers. In calling attention to Mr. Forsyth's criticism on it, my object was chiefly to show that he betrayed a bigoted, narrow spirit, — one altogether so different from that of a real connoisseur in the art, as to render valueless the praise he has bestowed on Palladio.

But Verus imagines he has got me into the wedge of a dilemma, by saying that, if I would have people believe in the architectural beauty of the ducal palace, they are, by my own showing, also bound to do so in that of the elevations of Palladio. Now, I did not apply the term "beauty" at all to that edifice; which, as usually understood, is one that would very ill express its peculiar characteristics; nor do I know of any single word in our language that would do it justice. Although it runs counter to ordinary rules, it is fine, impressive, and picturesque, full of dignity and grandeur. Then, says Verus, we claim a similar admission in favour of Palladio, and contend that, let his defects be what they may, he has merits which amply atone for them: for so I interpret his meaning. I have, indeed, admitted that "a piece of architecture may have several individual blemishes, and yet may be admirable as a whole;" and that there are blemishes enow to be met with in Palladio I do not deny, yet it does not exactly follow that they are, *therefore*, accompanied by redeeming qualities. I had previously instanced what I considered a very glaring specimen of bad taste among Palladio's designs; why, then,

did not Verus point out in what the excellence of that façade consists, or else, at any rate, bring forward some particular building as an example of his felicity. As Verus did not care to do this, I am at liberty to suppose he did not find it exactly convenient for his purpose. Neither can I help being of opinion that he has somewhat overshot his mark, since he seems to make no allowance for constitutional difference between one system of architecture and another, but to suppose that the same degree of license which is admissible in one must be equally so in another; and that, if we are not shocked in the older Venetian style at what is so much at variance with the principles of architecture as usually laid down, we have no right to take offence at the vagaries of Palladio. It would also be difficult for him, I apprehend, to produce, from the works of Sir W. Chambers, parallel instances of the deformities I have enumerated as to be met with — I might say, which predominate — in those of the Vicentine architect.

I do not disavow the epithet of "Proteus," which it has pleased Verus to apply to me, because I do not pique myself upon possessing such a one-sided taste, as to hold that we cannot entertain a sincere affection for any one style in particular without condemning all the rest. Therefore, although I do not admire Palladio's own manner, which partakes too much of *el estilo plateresco* to obtain favour in my eyes, I can perceive great merit in many of the designs of Chambers and other later *Palladianists*, purged of the abominations that disfigure nearly all the productions of their master. As to Jones, indeed, I must be excused from expending much admiration upon him, whether it be to satisfy Verus or any one else.

My respondent has got hold of a very mistaken notion, in supposing that I cited the name of Sir John Vanbrugh with approbation, or alluded to him otherwise than as an authority, and not an unsuccessful one, for availing himself of chimneys as component parts in his designs. My words went no further than to express how widely Vanbrugh's practice herein differed from Forsyth's theory; because, while the one insists that such "sordid objects" ought not to be suffered to appear, the former was anxious to render them "agreeable and consistent features," and generally made them "tell" admirably. Now, pointing to him as an example for what may be so accomplished is, I conceive, altogether a different thing from commending his style of design. In like manner, the quotation from Williams was intended, not in direct approval of the kind of chimneys to which he refers, but merely as evidence to show that they contribute to picturesqueness and decided character, where little other merit is to be found. Nothing was further from my mind, at the time, than to recommend the application of those forms for the purpose required. If they cannot be denied to be picturesque, even when exceedingly uncouth in themselves, it is for the architect to confer beauty upon them likewise, and to exhibit them in perfect harmony with all the rest of his design, whatever may be the style he adopts for it; at least, unless he can contrive to screen them entirely from sight.

Verus has put the following query: "Could he" (meaning myself) "find no better architects in the list of native talent than the authors of Thornbury and East Basham?" and, in reply to this, I cannot help remarking that the obliquity of view with which he seems to have read my article does not say much for the candour he pretends to. There was nothing whatever in my remark that claimed preeminence of rank, in the list of native talent, for the authors of Thornbury and East Basham, whose names, as far as I am aware, have not come down to us. I did no more than point to the buildings themselves, for the purpose of showing how much care and study were bestowed by the architects of that period upon their chimneys, which they well knew how to render appendages no less appropriate than prominent and ornamental.

Again does Verus appear to me to have entered upon an unfortunate line of argument himself, when, in comment on my remark that the ducal palace of Venice has no little fascination for painters, he urges that *that* "is no proof of its fine architectural character. That proves either too much or too little,

since the same line of argument would establish that every crazy, tottering old cottage or gable, in short, any thing that is picturesque in the eye of a painter, is really a fine piece of architecture." Is Verus, then, so utterly unable to discriminate between the different constituents of picturesque quality, or the manner in which that quality is influenced by its association with others, as to suppose it possible for any one to confound the species of the picturesque which exhibits itself in that palatial edifice, with the widely different kind which recommends to the artist objects unsightly in themselves, and yet capable of being rendered highly attractive when transferred to paper or canvass? Or is he disposed to advance a step further in his *reductio ad absurdum*, and to maintain that, because an artist may find his account in depicting age and deformity, and treat them quite *con amore*, he is, therefore, an incompetent judge of beauty; and few artists, I conceive, who are able to appreciate and to do justice to the ducal palace, as a subject for their pencil, will assert that they recognise no other merits in it than what they could find in any "crazy, tottering old cottage or gable."

Whether the victory be assigned to Verus or myself, your readers will have the benefit of the discussion, and perhaps be induced to reconsider more attentively than they otherwise might have done what has been urged by each of us in our respective views of the question, before they decide in favour of either of us. — *London, June* 3. 1835.

Competition Designs. (p. 283.)—In reference to this subject, allow me briefly to record my ideas (upon which I would invite the opinions of my professional brethren) as to the only fair way to decide upon all occasions. My plan is simply this: — Apply to a few gentlemen, or throw open to public competition (the former being preferable); and let all the designs be submitted to the candidates sending in; a time being appointed of sufficient duration to enable them to decide, with satisfaction to themselves, as to the merits of each. Then let each such candidate give in his opinion in writing, sealed up, stating which he considers the best design (of course excluding his own); the scrutinisers of these opinions to be appointed, one only of the committee requiring the designs, the other out of the competitors themselves. If this plan were adopted, I do not think it would be material if the name of the architect were affixed to his design. If any of the designs had an equal number of votes then in that case (which would not often happen) such designs to be again put through the same ordeal, or left to the committee themselves. My desire in recommending this course to all public committees is this: that the candidates themselves, having so thoroughly studied the subject, are the best judges to decide as to the required desideratum for the particular building. — *John Burges Watson.* 30. *Duke Street, Manchester Square, London, June* 3. 1835.

The Birmingham Town Hall. (p. 16. and p. 237.) — I am not desirous of occupying any space in your valuable pages by my own affairs; but, as you have given publication (p. 237.), to a document written by my late partner, Mr. Hansom, charging me with deliberate and intentional injustice to him, and implying professional and moral dishonesty in the account offered to the world in p. 16., respecting the Birmingham Town Hall (of which account I acknowledge myself the author), I feel bound to put myself right morally before the public.

I am not sufficiently blinded in my own favour, or to Mr. Hansom's prejudice, to assert that my talents are equal to his. I have *voluntarily* submitted to his guidance with a most satisfactory preference of his designs to my own. It was upon this opinion of his abilities, and upon a similar opinion of his moral worth, that I originally proposed a partnership, which he embraced with avidity and enthusiasm. It is not for me to say whether he saw, or only fancied he saw, the elements, at least, of professional promise in me, which rendered me for that time, and for years afterwards, worthy of his association and esteem; that I will leave him to make public, if any thing need be said upon the subject. I disclaim all desire or intention, in anything I have said or written since our Town Hall misfortunes, to do him injustice, or to injure

his present prospects, or future hopes, in any way. I am free from envy or jealousy towards him in all respects; and no one will be better pleased in seeing him in the highest position his ambition aims at, or his merits may qualify him to occupy.

It must be pretty well known, that the old Fishmongers' Hall, London, has been partly pulled down for some years; and that, although designs for a new hall were not, until recently, advertised for, it had been evident to architects that they would be wanted; and, no doubt, many young aspirants, like Mr. Hansom and myself, were on the look out for an opportunity of showing what the Fishmongers' Company ought to have. Two years before the time when designs were required for the Birmingham Town Hall, I wrote to Mr. Hansom, from London, on the subject (he being then at York), stating that I thought a temple mounted on an elevated basement would be a fine design for the Fishmongers' Hall, and would rise above the Thames and Thames Street with a proud outline, and would command considerable admiration. Mr. Hansom then sketched out the design (he sketches better than I can), and soon afterwards gave his sketch to me. I put it into the hands of my friend, Capt. Freeman (in whose possession it probably now is), for the purpose of introducing us to the Fishmongers' Company, when occasion might offer. That sketch was what the Birmingham Town Hall now is. I do not mean to assert that I could or should have turned the idea to that account which Mr. Hansom has done, in his application of it to the Birmingham Town Hall; but I wish to justify the statement made by me (p. 20.), that "the design was jointly produced by Messrs. Hansom and Welch, and originally intended for the Fishmongers' Hall;" at least I wish to give the reasons why that is my opinion.

Mr. Hansom asks why I had not the honesty to state that I was his competitor for the Birmingham Town Hall? Had I been discussing our comparative merits, instead of simply writing an account of the progress of the edifice now erected, I should have done so. Mr. Hansom is heartily welcome to publish the design he refers to if he so pleases: the world will see, no doubt, that it is greatly inferior to the present hall; but it claims the merit, if it has no other, that it would be easily built for 17,000*l.*, the sum proposed to be spent by the town, instead of more than 30,000*l.*, which the present structure has cost: and it would have saved the architects from bankruptcy, and the securities from injury, though it might not have left us so much *fame* to dispute about.

Let not Mr. Hansom again misunderstand me to mean or imply that he has any occasion for my mind to originate forms of magnificence. I can have no objection to bear unequivocal testimony, that, in my opinion, there is no architect in England who has greater fertility and boldness of conception than himself, or who can evince a greater superiority in detail; and, having, with all candour, recorded this testimony, I now betake myself to find my own position, which I hope to occupy with honour to myself, and with satisfaction to those who may be sufficiently indulgent to think favourably of my attempt. — *Edward Welch. Birmingham, May* 18. 1835.

The new Corn Exchange at Manchester. — Your correspondent, Mancunius, in p. 282., states that Mr. Lane's designs are about to be put into execution for the new Corn Exchange, Manchester; that numerous designs were received by the committee, reflecting high credit upon the respective artists; and that, after mature deliberation, the plans of Mr. Lane were adopted.

The front of Mr. Lane's design is said to consist of a central portico of six columns of the Ionic temple on the Ilyssus, and the work is called bold and classical. Now I ask what has the temple of Ilyssus to do with the Manchester Corn Exchange? Does this bold and classical design display any inventive genius in the architect? Does he show, by taking a design in this Ilissus order out of Stuart's *Athens*, and applying it to a purpose quite different from that it was designed for, that he is exercising the power he, as an architect, ought to possess; viz., that of inventing, and not copying? But this is the

custom of the times in which we live; and architects are applauded when, in designing a domestic or commercial building, they can bring an Athenian temple before the classical judgment of the public! Now, Sir, if copying Athenian designs be a test, there must be a very great number of bold and classical buildings in this country; for we have the Ilissus order in John Street, Bedford Row; in Chadwick Street, Clerkenwell; in Trafalgar Square; in a hundred places in Regent Street; in most of the new churches built by the church commissioners; and, in short, in almost all the little entrances to private houses; in fact, London is Ilissus from the beginning to the end of the chapter. A Mr. Smith, or a Mr. Brown, cuts a leaf out of Stuart's *Athens*, and calls it a market-house or a town hall, a church or a theatre, a cottage or a palace, and sometimes even a stable, as the case may be; the same portico, the same order, is applied to each, and then the people cry, beautiful! classical! wonderful genius! This all originates in a want of expression of character in most of the buildings erected within the last half century; in want of reflection in our architects; and in a deficiency in the architectural knowledge of the public generally. And who are the persons to be principally blamed for this? I answer, the architects. They have the power in their own hands; they sit in judgment, and fall into the faults they condemn. But, as architectural knowledge becomes general, the public will be able to form an opinion of their own; they will leave off the general demand for what is called classical architecture, and they will begin to think that a Greek temple is not the most appropriate form for a Christian church, or a corn exchange. I would not be mistaken, when I say this, as an objector to the classic style, for I admire the Greek architecture as much as any lover of elegant architecture can; but the admiration excited by its beauty and elegance turns to disgust, when the building assumes a form totally at variance with its uses. The ancient architects invented the five orders; the architects of the middle ages invented Gothic architecture: why should not the architects of the nineteenth century invent a new and elegant architecture? In a great measure they are swayed by caprice. If you do not show columns that are known, all the classical phalanx revile you; for sinning against their laws, you are condemned and run down as an innovator, and your single voice is not heard, or, at least, not attended to, in the vast crowd: but if you build a church exactly like an Athenian temple, or in imitation of St. Martin's in the Fields, which is looked upon as the standard of excellence, you will be applauded, and will be permitted to mingle with the classical crowd thronging the road to fame. I have frequently tried to like St. Martin's Church, and to find those excellencies in it which have been so much talked about; but I have only been able to come to this conclusion, that at the time this church was built it was the only tolerable one near what is called the fashionable part of the town, and Gibbs was an architect who was much thought of at the time. This church thus was seen by the *beau monde*, and it became talked of and praised from time to time, till now it amounts almost to sacrilege to say anything against it. In the same way the New Post Office has been talked of and looked up to as the *beau ideal* of a public building. I may mention incidentally that I have seen a print of St. Martin's Church, showing an odd number of columns in the front of the portico; such was the rage for praise, that this trifling error was not much noticed.

I hope to see the day when architects will leave off copying temples so ill calculated for our architecture, and when they will follow the steps of Sir John Soane, in his boldness in throwing off the architectural shackles. Sir John has invented a style; with numerous faults, it is true, but it has been imitated, and it has not only been the foundation for reflection in other architects, but also the base of that fame which raises Sir John Soane above most of the architects of the present day. Sir John's architecture has many very glaring absurdities, but it has also many beauties.—*L. London, June* 1. 1835.

Mr. Kent's Dining-Room. (p. 280.)—In the section of Mr. Kent's dining-room, fig 160., some trifling errors have crept in, and, as it is our wish to render this Magazine as perfect as possible in every particular, we have had

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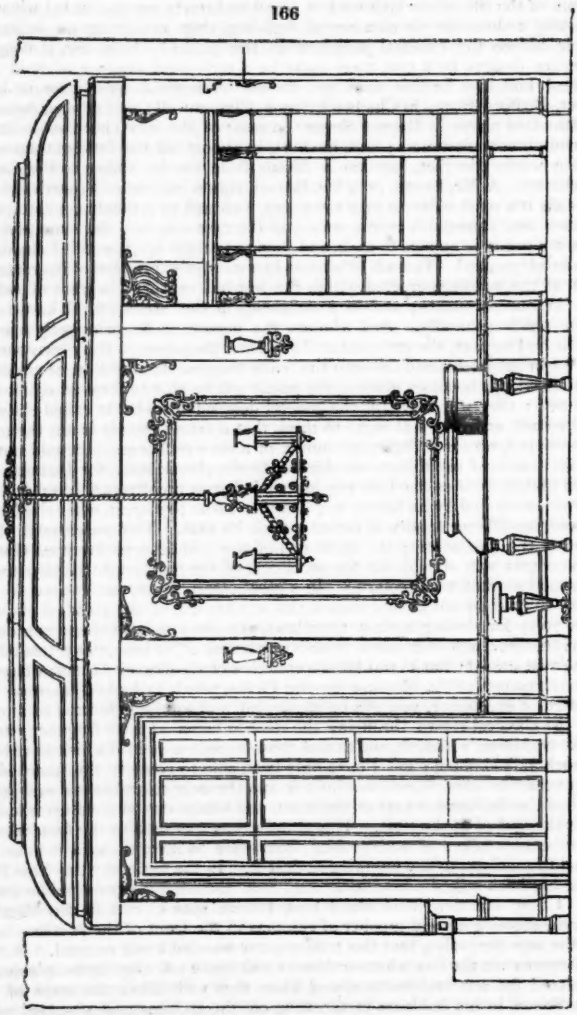


the corrections made in *fig.* 166., which the young architect is requested to compare with fig. 160. p. 280.

The Architectural Magazine for April and May. — The article by W. H. (p. 193.), as far as I could understand it, appears to me to consist of truisms, and may be styled, " common-place run mad." In the whole course of my life I never read anything like it. Candidus writes fluently and well. I suppose, from the tenor of his remarks, he is an amateur; but, who and what ever he be, I offer him my cordial testimony to his merits as a writer and a

man of taste. In his observations on Palladio I fully concur. It is high time that the architectural arch-impostor should be hurled from the niche in the temple of Fame he has so long unworthily filled. — *P. Lancashire, May* 30. 1835.

Distribution of Premiums. — In the Domestic Notices (p. 352.) is an account of the distribution of premiums for the Exeter Markets, and it is certainly a strange coincidence that they are nearly all given to natives of Exeter, or its immediate vicinity, Messrs. Poynter and Bunning being the only strangers. I know all the others are what are termed "downalongs" about Bristol; that is, natives of that part of Devonshire. The other two may be natives also, but I do not know them to be so, and, therefore, presume that they are not. This will, perhaps, form some clue to the cause why the other architect's plans were returned to him in the manner described in the *Times* newspaper (see p. 352.). Mr. Inman, architect in Lincoln's Inn Fields, could give you some curious information as to these competitions of architects, in the case of Great Marlow church, in 1831. Mr. Britton can likewise let you into the secret of how the Fishmongers' Hall premiums were awarded by ———— to his own clerk, on condition of receiving a commission from him on the amount he received as architect of the edifice. The design was made in ————'s own office, and all the designs were sent to him, for his decision as to the three best. It is well known that the architect for St. Pancras church was appointed by the select vestry, before designs from other architects were advertised for; and, still later, the magistrates of Salop wanted designs for a county hall, &c., which, when delivered to them, were sent from Shrewsbury to London to ————, to decide upon ostensibly, but really for him to cull the best parts of each, in order to incorporate into one by himself. I myself sent designs there, which to this day have never been returned, although they were written for repeatedly. Such are a few of the benefits of competition among architects. Mr. Dymond can vouch for the truth of this Shrewsbury case. — *Wm. Ross, Architect, late of Bristol, but now of New York, U. S. February* 23. 1835.

Our correspondent, Mr. Ross, has authorised us to publish the above statement, with the names at length, instead of the blanks which we have substituted; but, fearing that this might involve us in law expenses, we have thought it prudent not to give the names. We shall preserve the original letter, however, and show it to any architect who may choose to call. — *Cond.*

Strength of Materials.—In answer to the remarks of Mr. Thorold (p. 191.), I have to confess that I was not aware there were any correct rules extant for calculating the strength of beams, when employed with the force of compression applied parallel to the length of the fibres, when the beam is of great length in comparison to its section, as in story posts, &c. Perhaps Mr. Thorold will be kind enough to state them, as my only object in bringing the subject under the notice of your readers was to obtain as much useful information on this important point as possible. I am aware that the late Mr. Tredgold has given an approximate rule for this purpose, but the principle on which it is founded has no substantial basis. It is merely founded on supposition as a matter of necessity, he having no experimental data.

My object is to ascertain the greatest weight which certain beams would carry without being injured; and then it would be a very easy matter to make sufficient allowances for any defects in the materials proposed to be employed. Would Mr. Thorold state his opinion as to where a beam overloaded would fracture, and what description of curve would be formed before such fracture would take place; as it is supposed by many that the swelling of the shafts of columns is in imitation of such curve. — *W. J. S. London, April* 5. 1835.

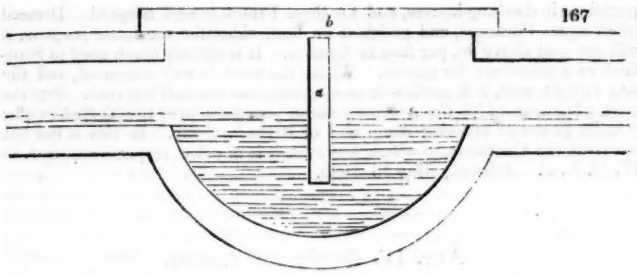
Mr. Mallet's Article on Metallic Trusses (p. 165.) has given me much pleasure and information. Such articles are exceedingly valuable, particularly to the architectural student and builder, as the clearness and perspicuity of the description and drawings are such as to enable any person conversant with

the constructive and executive parts of building to apply them. The same defect, and arising from the same cause, as it appears to me, occurred to a girder in a large warehouse, erected under my direction some years ago, in the city of London. Each floor, in this case, contained from eight to ten girders, 14 in. square, having their ends inserted in the party walls. Care was taken to keep them away from the flues, and air was admitted to circulate freely round their ends; but, unfortunately, soon after it was found convenient by the tenant of the premises to have a flue carried up from his counting-house close to the end of one of the girders. Seven or eight years after this was done, I was informed that symptoms of the dry rot had made their appearance in one of the girders; and, upon cutting away the ceiling, &c., and exposing the timber, it was found decayed and covered with a dry-rot fungus, extending from 6 ft. to 8 ft. along the girder. I remember my fears, before I thought of the cause, induced me to examine the other girders, and there were between thirty and forty of them, but they were all sound; I, therefore, concluded the one that was decayed had been operated upon by the heat of the flue, or had been originally defective.

The observations made by Mr. Mallet on the state he found those girders in, the ends of which were in contact with the flues, brought this circumstance to my mind, and has induced me to make these remarks, hoping that his valuable information on the subject will make practical builders more careful (when they are called upon to build flues without the advice of the architect) not to carry them up close to any main timber; as, to my own knowledge, they too generally are at present.

The method adopted by Mr. Mallet in trussing up the girder by means of metallic trusses, as well as the double truss he employed to get up the partition and the roof, appear to me not only excellent in their construction, and admirably adapted to the purpose he had in view, but they will, I think, be found entirely new to most of your readers; and I sincerely hope that he will furnish you also with a description of the method he employed to draw up the ceiling of the library he speaks of. Such articles as these cannot fail to render your Magazine valuable to all parties connected with building. Hoping that I shall soon have the pleasure of studying another of Mr. Mallet's valuable practical papers, and wishing every success to your Magazine, I remain, &c. — *I. J. K. London, April*, 1835.

Hints on the Prevention of Vermin. (p. 179.)—In this article the section of a drain is given (fig. 99. p. 179.), which to my mind would lead astray rather than assist a tyro; and, if I take it right, your intention is to address information to persons of that class. Now, perfect drainage being so very essential a point as regards the health and comfort of the occupiers of a dwelling, I am of opinion that a "barrel drain," that is, one forming a complete circle, is the best and most sound and economical one that can possibly be used in any situation. In moderate sizes the rim or circumference should be a brick's width, or 4½ in. in thickness, and the whole rim should be set in cement, in addition to which the lower half of the inside should be rendered (plastered) with cement also. In a drain of this description, with a fall of 1½ in. in every length of 10 ft., no soil will remain; neither will any grease or filth adhere to the sides, as is the case with drains constructed with flat bottoms, thereby causing a source of aliment to the rats and vermin. As a further check, a vermin trap, similar to *fig.* 167., should, in every instance, be formed at the commencement of the drain, as near as possible to the entrance into a sewer, if that should be the outlet; and care should be taken that the dip-stone (*a*) should not touch the cover (*b*) within half an inch, in order that a current of air may pass to allow the water and soil to flow through the trap and drain. This latter point is that to which I wish to call your attention, as the article before referred to does not show this, or mention the subject of its construction. This trap should be formed with brick and cement, and should be thoroughly covered inside with cement, so as to make it completely water-tight.



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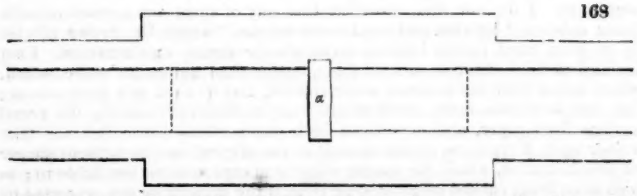

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With the above description of drain and trap, the necessity for those great nuisances, cesspools, may be entirely obviated; thereby removing altogether from the interior a source of very great annoyance from offensive and injurious smells which so often prevail in houses of the metropolis. In the section (*fig.* 167.), the internal diameter of the drain is 9 in., and the thickness of the walls of the rim 4 in. The space between the dip-stone (*a*) and the bottom of the trap is also 9 in. The plan (*fig.* 168.) shows that the dip-stone (*a*) is fixed in the sides. — *A Junior. London, April* 21. 1835.

Hunter's Stone-planing Machine. (p. 283.)—It is somewhat singular that this invention, which I feel confident is calculated to diminish the cost of hewing all the stone in the country to one third of its present amount, should excite so little attention. If any credit be attached to the statement of the very respectable engineers who drew it up [see this statement in the *Mechanic's Magazine*, vol. xxiii. p. 73.], my opinion would be fully borne out; at least so far as the Arbroath stone is concerned. This stone is very well known to stand pretty high in the scale of hardness and difficulty of working, and yet not a single professional individual has thought it worth his while to inspect the operation, or to make an enquiry on the subject.

As the principle of this invention is equally applicable to a rotary motion, it may, I think, tend greatly to the advancement of architectural ornament. We have not as yet adopted it, in that way, as a manufacture; but I have a vase (modelled from a drawing in your *Encyclopædia of Architecture*), 20 in. high and 18 in. across the mouth, which was turned out of the solid block in the course of a few hours, the inside being hollowed out, leaving the cup 1 in. thick, and the whole with a smooth polished surface. This was done at a common turning lathe. With an apparatus properly fitted up for the purpose, I am confident that stone of similar hardness with the Arbroath pavement may be turned as fast, and nearly as economically, as wood.

The facility and cheapness with which the Arbroath stone can now be dressed, will, I think, soon render it useful for other purposes than those you mention. You have already, in some of your works (of which I have, from the first, been a constant reader), advised, I think, both stone floors and stone

partitions in dwelling-houses, and for these I think it well adapted. Dressed to an equal thickness, and polished on both sides, for the latter purpose, it will not cost above 9*d.* per foot in London. It is already much used in Scotland as a substitute for marble. Where the work is well executed, and the best varnish used, it is preferable to scagliola, and not half the cost. But the great advantage which the Arbroath stone possesses over the Yorkshire flag is in its power of resisting damp and of drying quickly. In this it has but one rival, the Caithness, to which, however, it is in other respects superior. — *W. D. L. C. Arbroath, May* 16. 1835.

Art. IV. *Queries and Answers.*

Colours and Drawing Instruments. — In answer to Mr. Brown's enquiries (p. 48.), I have been endeavouring to ascertain among my professional friends, some of whom are of long standing, what colours and instruments are best for architects. I do not find, however, that any of them are acquainted with those colours, "between body and water colours," which Mr. Brown alludes to as being used by the London architects for tinting up elevations. I am inclined to think there is no such thing, farther than an opaque white, which, when mixed with the common water colours, may be used as a body colour; but this is seldom done, as there are many methods of removing the tinted surface from paper, and exposing a fresh one perfectly white, that will take colour again if requisite, almost as well as the original, and be without danger of discolouration, which the opaque white is always more or less liable to; as well as to being rubbed off after some time, if the drawing be not protected by a glass. If there is any other kind of colour at all similar to that Mr. Brown enquires after, it is not in general use, or even much known among the profession. The water colours I consider best for the use of architects are Newman's and Smith's. From the former maker I have had particularly good burnt and raw terra Sienna, Indian yellow, yellow ochre, Vandyke brown, and lake; and from the latter a deep cobalt, called French blue, which is very useful, blue-black, a mixed warm green, and sepia. The remaining colours I get from either, as I have observed no difference in their quality.

There are so many good drawing instrument makers in London, that it is hardly right to mention any one in particular. I have lately had from Elliot, Holborn, a set of instruments that work extremely well, especially the drawing pens, and the wheels for ruling the different kinds of dotted lines. Indeed, I never met with any instruments so much to my liking, and my friends, who have dealt at the same shop, appear equally well satisfied. Elliot's charges, also, are, I think, moderate. — *R. V. London, April,* 1835.

Fluted Corinthian Columns. — In many examples of the Corinthian column in this country, there is a convex moulding carried up to a certain height in the fluting of the column. Is this an invention of the modern architect, or is it to be found in any of our ancient examples? — *Tyro. Wilmington Square.*

Kyan's Mode of Preserving Timber. (p. 236.) — Dr. Birkbeck compares Mr. Kyan's process with that of tanning, and if the chemical combination were as complete in the case of timber as it is in that of leather, the comparison would hold good. I understand, however, that this is by no means the case; as a proof of which it may be stated, that carpenters who have worked up the prepared timber have been salivated. I should like very much to know what Dr. Birkbeck has to say in explanation of this fact; and I would ask the same question of Mr. Kyan, or, indeed, of any person who has attended to the subject. I was in hopes, with you, that this invention would have held good, and that in time it would have been followed by another, which would have rendered timber indestructible by fire. — *T. B. London, May* 30. 1835.